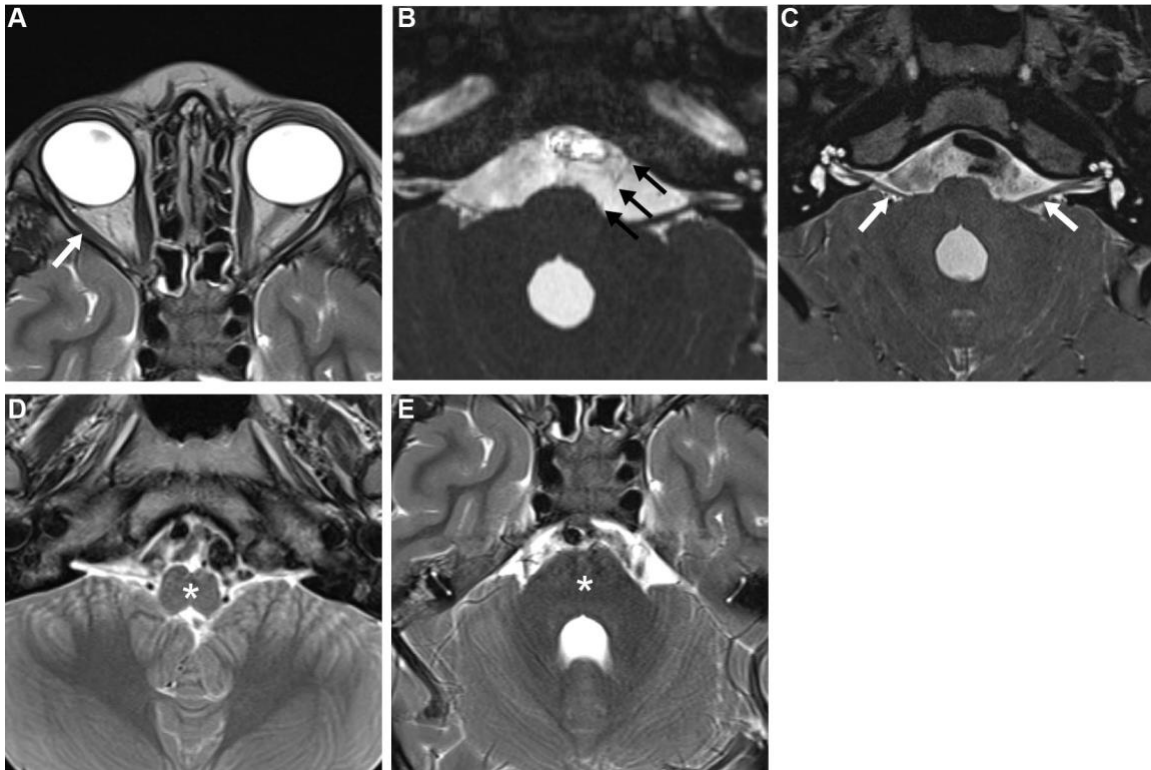
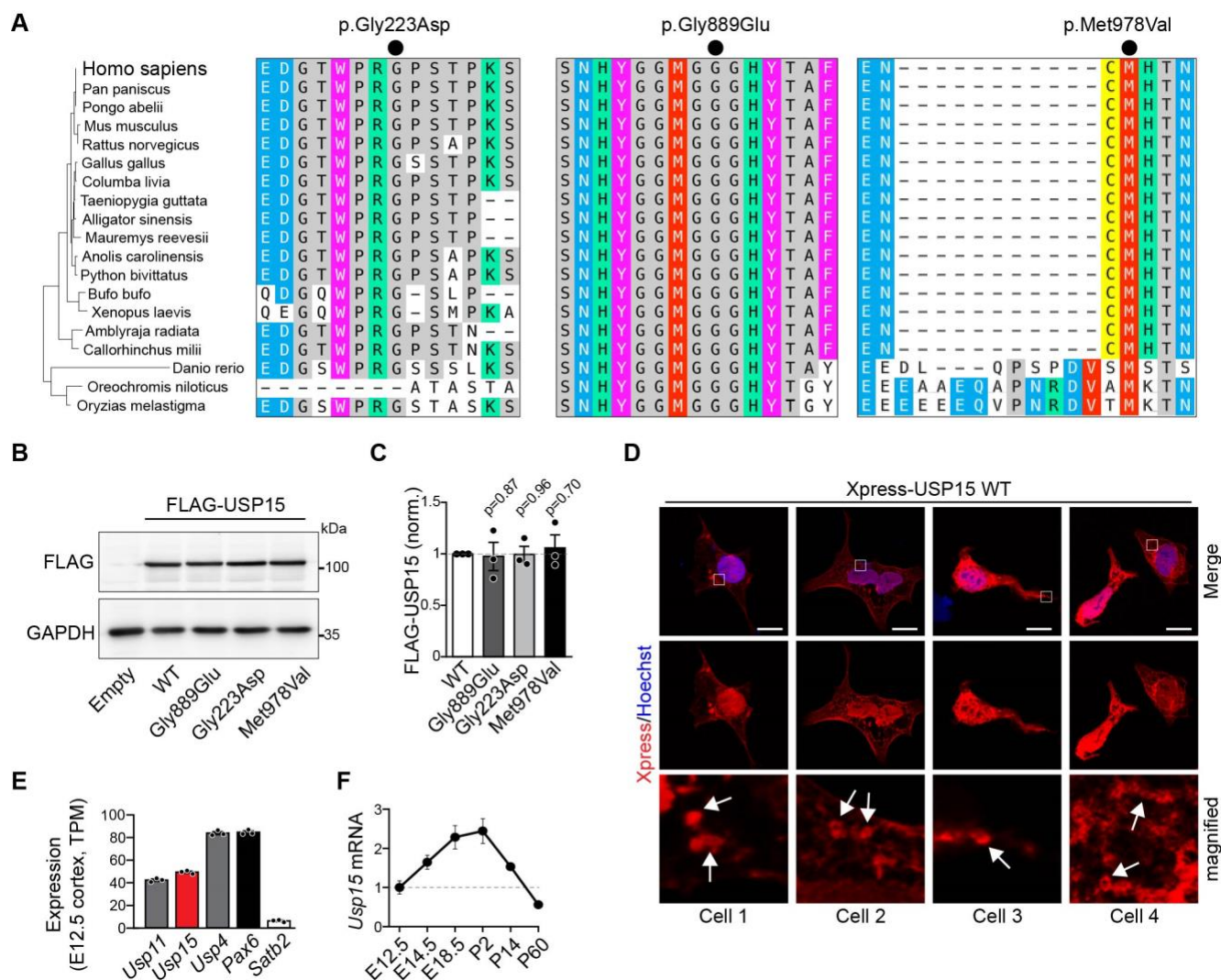


Supplemental material for “Nucleocytoplasmic shuttling of USP15 promotes pathological autophagy that disrupts neural stem cell homeostasis and neurodevelopment”

Supplemental Figures

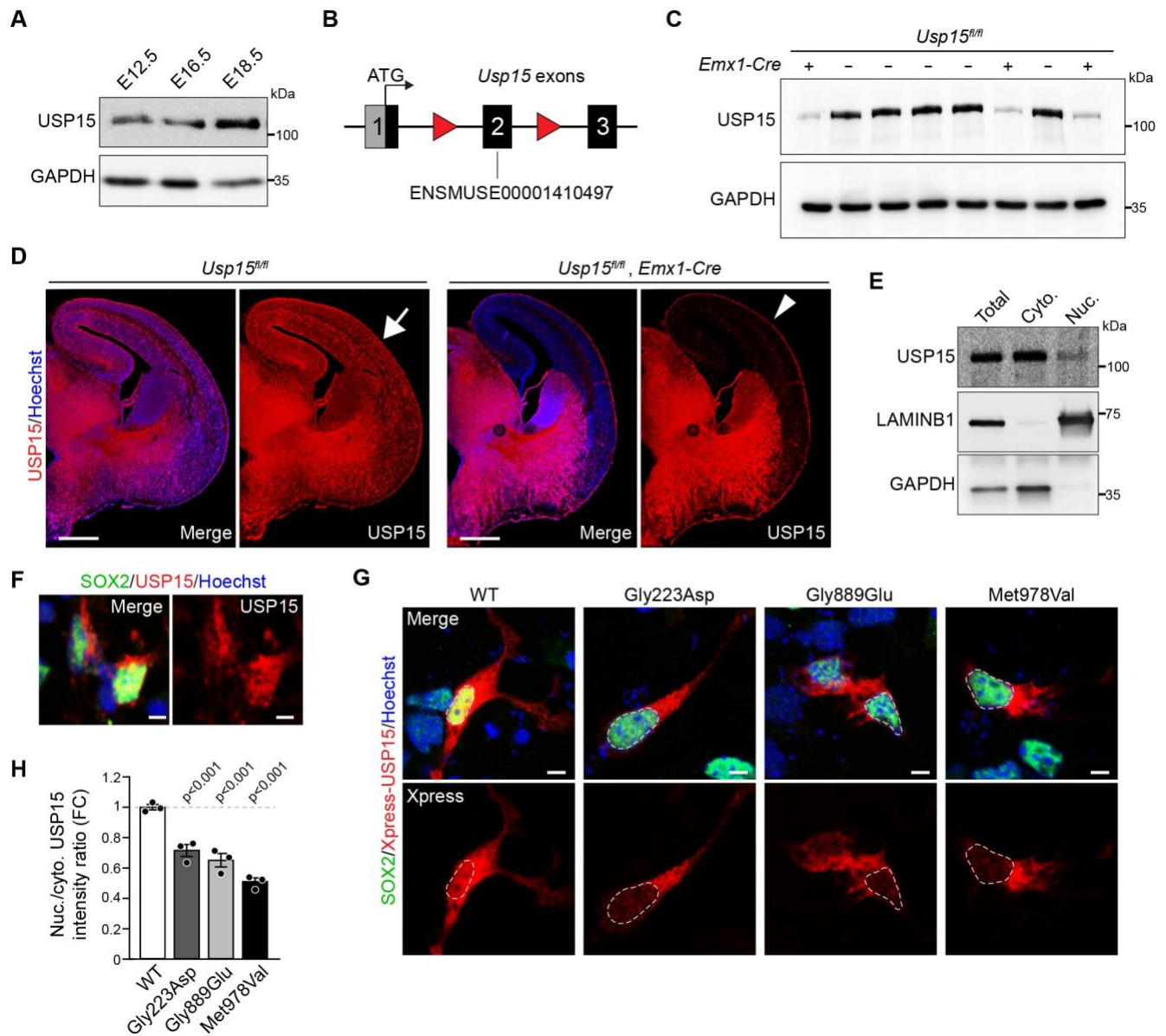


**Supplemental Figure 1. Brain MRI findings in proband 2.** (A) Axial fast spin echo (FSE) T2-weighted MR image of the orbits showing that the lateral rectus muscles are small bilaterally (white arrows). (B) Axial 3-dimensional (3D) constructive interference in steady state (CISS) MR image showing a tiny, thread-like, hypoplastic left CN 6 (black arrows). Right CN 6 is not seen, consistent with aplasia or severe hypoplasia. (C) Axial 3D sampling perfection with application-optimized contrasts using different flip angle evolution (SPACE) MR image showing the cisternal segments of CN 8 bilaterally (white arrows), and absence of CN 7 bilaterally. (D, E) Axial FSE T2 weighted MR images showing mild hypoplasia of (D) the medulla and (E) the pons (asterisks).

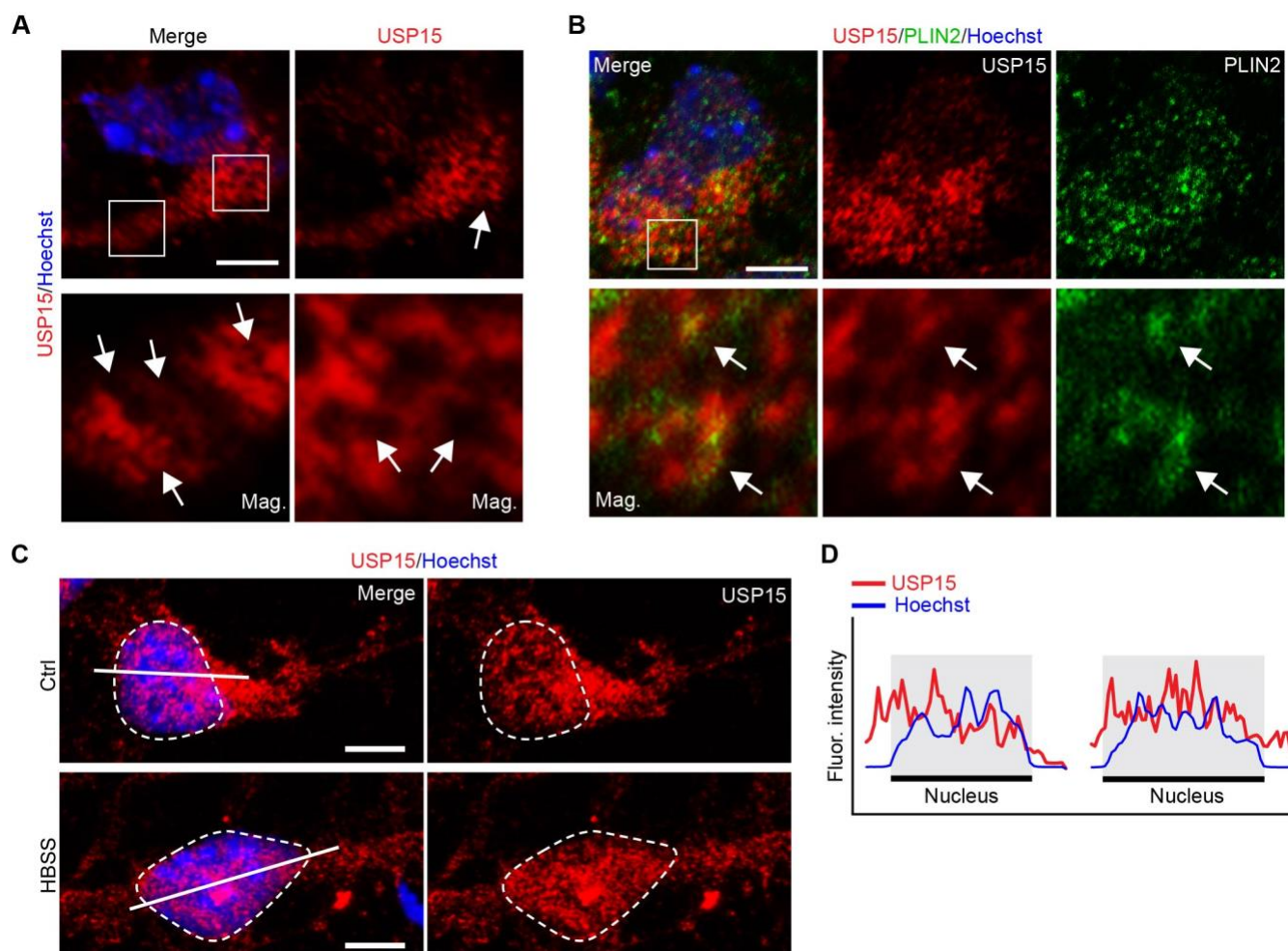


## Supplemental Figure 2. Conservation of USP15 variant sites and expression of variant proteins.

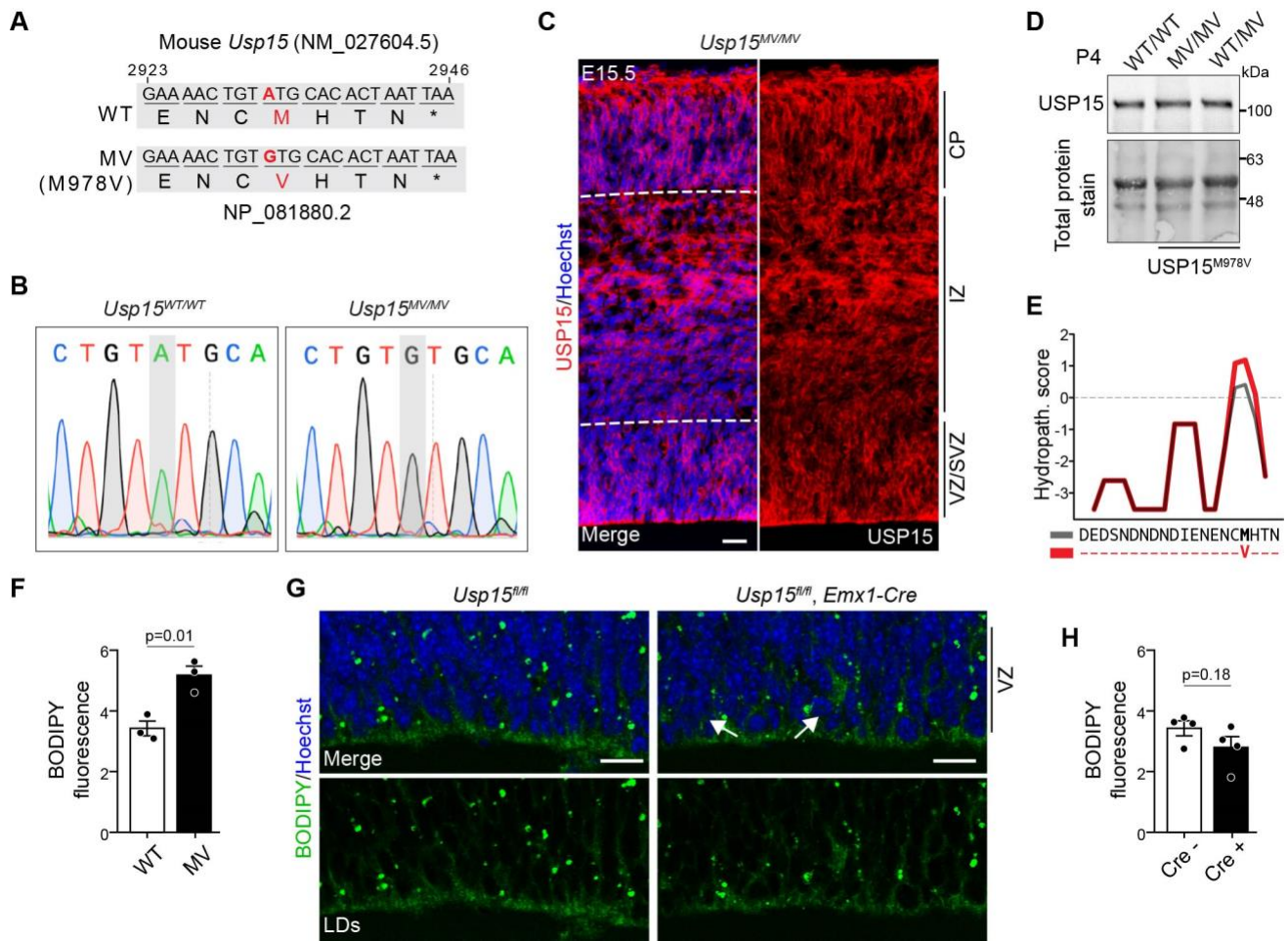
(A) Multiple sequence alignment (Clustal Omega, EMBL-EBI) showing conservation of human USP15 across select metazoan homologs arranged by species tree. Black dots indicate proband variant positions. (B) WB of FLAG-tagged WT and variant USP15 expressed in HEK293 cells. (C) Quantification of FLAG-USP15 protein levels relative to WT from (B).  $n = 3$ ; one-sample t-test. (D) Confocal images of HEK293 cells expressing Xpress-USP15, immunostained for Xpress (red). Insets show higher magnification of boxed regions. Arrows indicate cytoplasmic circular structures. Hoechst 33258 counterstain (blue). (E) Gene expression levels from RNA-seq data of the mouse cortex (1). (F) qPCR analysis of *Usp15* mRNA in mouse cortex at the indicated developmental time points.  $n \geq 3$ . Data are mean  $\pm$  SEM; each dot represents one experiment. Scale bar: 10  $\mu$ m.



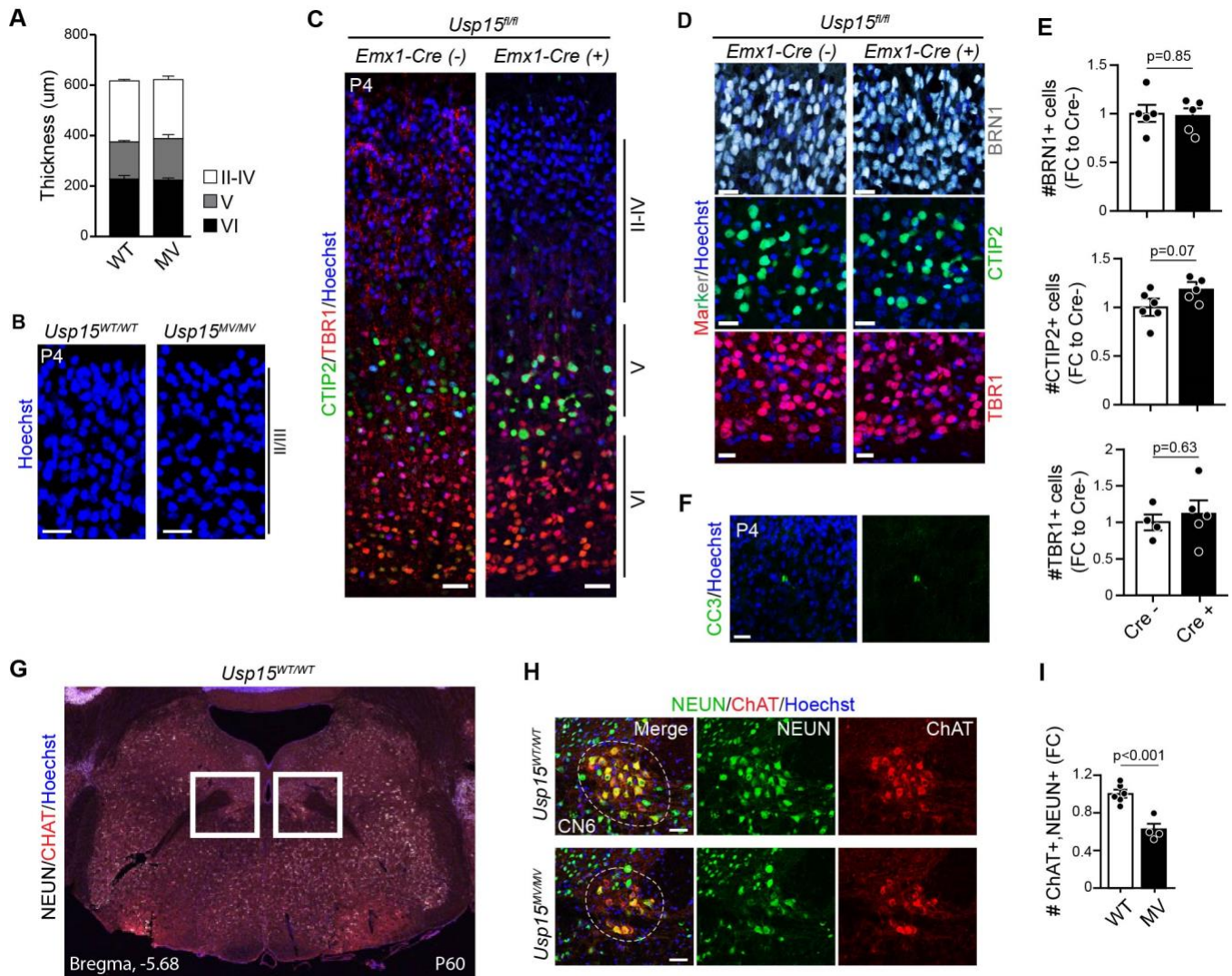
**Supplemental Figure 3. USP15 expression and localization in the developing cortex and NPCs.** (A) WB of the mouse cortex, probed for USP15. (B) Schematic of the conditional USP15 knockout allele showing loxP sites (red triangles) flanking exon 2. (C) WB of the P4 cortex from homozygous cKO mice (*Usp15<sup>fl/fl</sup>*) with or without the *Emx1-Cre* allele, probed for USP15 and GAPDH. (D) Confocal images of coronal brain sections from E15.5 *Usp15* cKO mice with or without *Emx1-Cre*, immunostained for USP15 (red). Arrow and arrowhead indicate the presence and absence of cortical USP15 expression, respectively. (E) WB of total lysate, nuclear (Nuc.), and cytoplasmic (Cyto.) fractions from the E15.5 cortex, probed for USP15, LAMINB1, and GAPDH. (F) Confocal images of cultured E13.5 NPCs, immunostained for SOX2 (green) and USP15 (red). (G) Confocal images of E13.5 NPCs expressing Xpress-tagged WT or variant USP15 (red). Dashed lines denote nuclei (blue). (H) Quantification of nuclear and cytoplasmic fluorescence intensity from (G), expressed relative to WT.  $n = 3$ ; one-way ANOVA (vs WT). Hoechst 33258 counterstain (blue) in D, F, and G. Data are mean  $\pm$  SEM; each dot represents one experiment. Scale bars: 5  $\mu$ m in F and G; 400  $\mu$ m in D. FC = fold change.



**Supplemental Figure 4. USP15 associates with lipid droplets and redistributes in response to metabolic state in cultured NPCs.** (A) Confocal images of E13.5 cultured NPCs immunostained for USP15 (red). Insets show higher magnification of boxed regions. Arrows indicate cytoplasmic circular USP15 patterns. (B) Confocal images showing colocalization of USP15 and PLIN2 (green; arrows). Insets show higher magnification of boxed regions. (C) Confocal images of NPCs treated with normal neurobasal medium (Ctrl) or HBSS (4 hr), immunostained for USP15 (red). Dashed lines denote nuclei. (D) Fluorescence intensity plots of USP15 (red) and Hoechst (blue) across individual NPCs from (C). Black bars indicate nuclear regions. Hoechst 33258 counterstain (blue) in all panels. Scale bars: 5  $\mu$ m.



**Supplemental Figure 5. Generation and validation of the USP15 MV knock-in mouse line.** (A) Sequence alignment of WT and MV USP15 showing nucleotide and amino acid sequences at the C-terminal region, with the p.Met978Val substitution highlighted in red. (B) Sanger sequencing confirming a homozygous A>G mutation in the MV mouse, corresponding to the p.Met978Val variant identified in proband 2. (C) Confocal images of coronal cortical sections from E15.5 MV embryos immunostained for USP15 (red). Dashed lines demarcate VZ/SVZ, IZ, and CP boundaries. (D) WB of P4 WT and MV (heterozygous and homozygous) cortices probed for USP15 and total protein. (E) Hydropathy plot of WT (black) and MV (red) USP15 sequences showing the effect of p.Met978Val on local hydrophobicity at the C-terminal region. (F) Quantification of BODIPY fluorescence in E15.5 WT and MV cortical sections.  $n = 3$ . (G) Confocal images of the VZ in E15.5 control and cKO cortical sections stained with BODIPY (green). (H) Quantification of BODIPY fluorescence from (G).  $n = 4$ . Hoechst 33258 counterstain (blue) in C and G. Data are mean  $\pm$  SEM; each dot represents one animal; unpaired t-test. Scale bars, 100  $\mu$ m in C; 20  $\mu$ m in G.



# **Supplemental Figure 6. Cortical layering and neuronal numbers in MV and cKO mice. (A)**

Quantification of cortical layer II–IV, V, and VI thickness in P4 WT and MV cortices.  $n \geq 4$ . **(B)**

Confocal images of the CP in P4 WT and MV cortical sections. **(C)** Confocal images of P4 control and

cKO cortical sections immunostained for CTIP2 (green) and TBR1 (red). **(D)** Confocal images of P4

control and cKO cortical sections immunostained for BRN1 (grey), CTIP2 (green) or TBR1 (red). **(E)**

Quantification of TBR1+, CTIP2+, and BRN1+ cell numbers in the cKO cortex expressed relative to

control.  $n = 5$ . **(F)** Confocal images of the CP in P4 MV cortical sections immunostained for cleaved

caspase 3 (CC3, green). **(G)** Confocal image of a P60 brain section immunostained for ChAT and

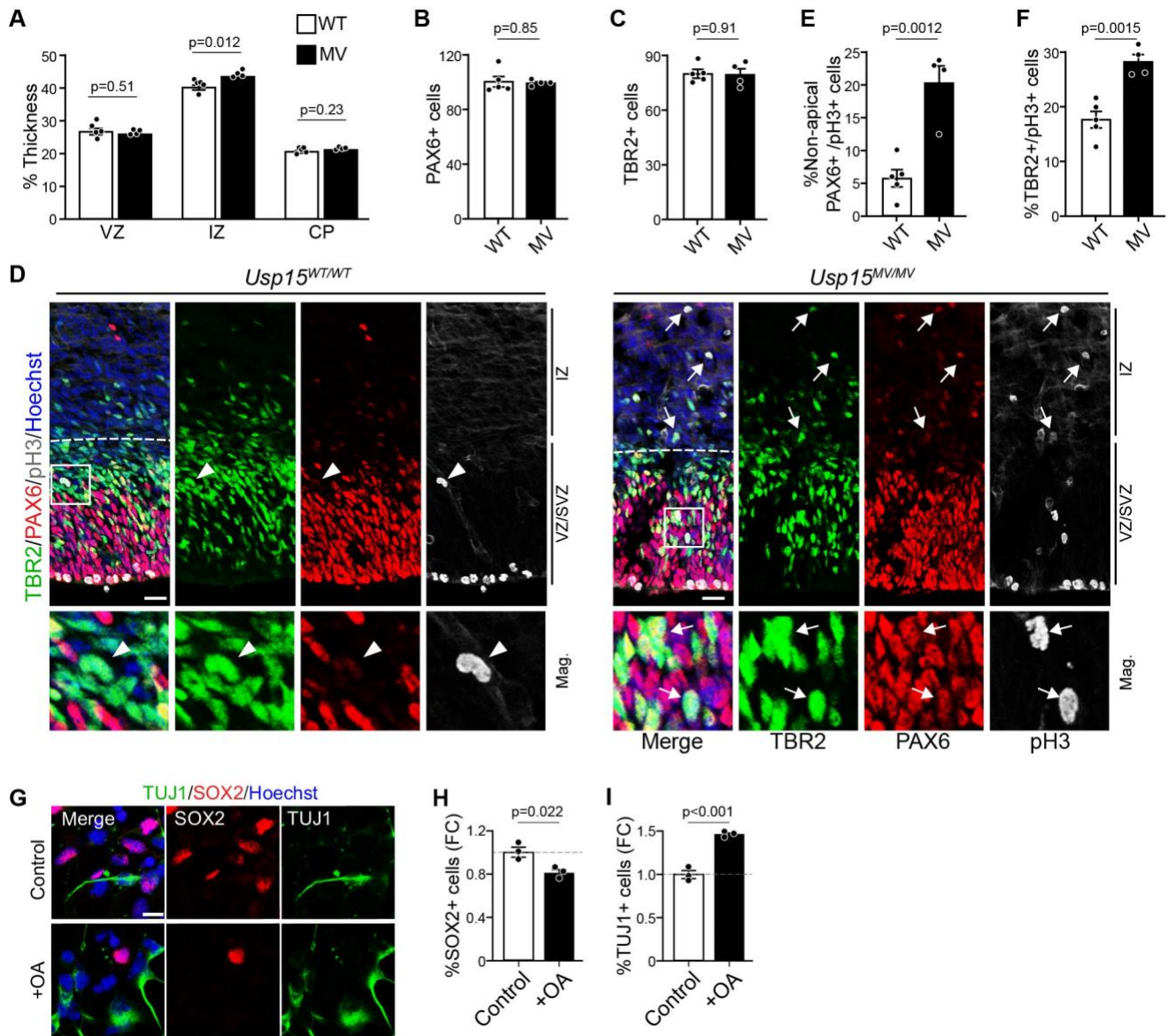
NEUN. White box regions mark CN 6 nuclei. **(H)** Confocal images of CN 6 nuclei (Bregma -5.68 mm)

in P60 WT and MV hindbrain sections immunostained for ChAT (red) and NEUN (green). **(I)**

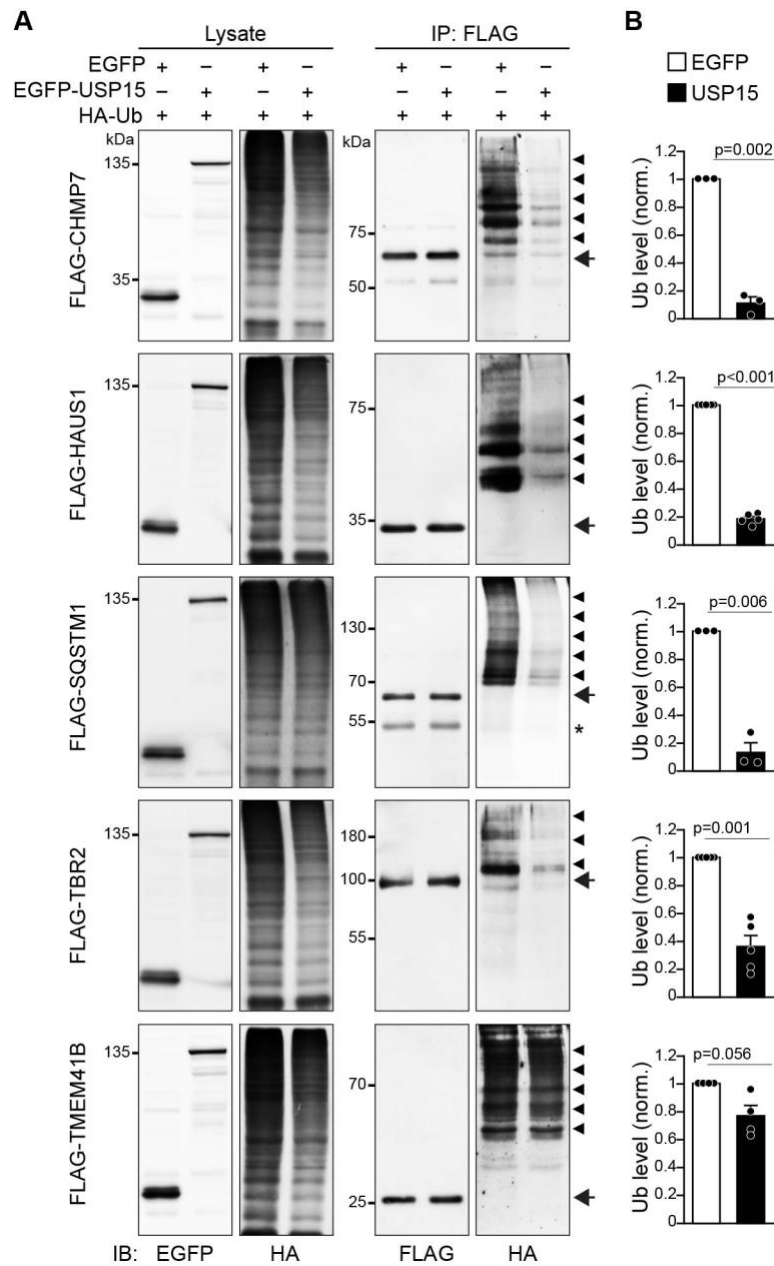
Quantification of ChAT+NEUN+ cells from (H).  $n \geq 4$ . Hoechst 33258 counterstain (blue) in all image

panels. Data are mean  $\pm$  SEM; each dot represents one animal; unpaired t-test. Scale bars: 25 um in D,

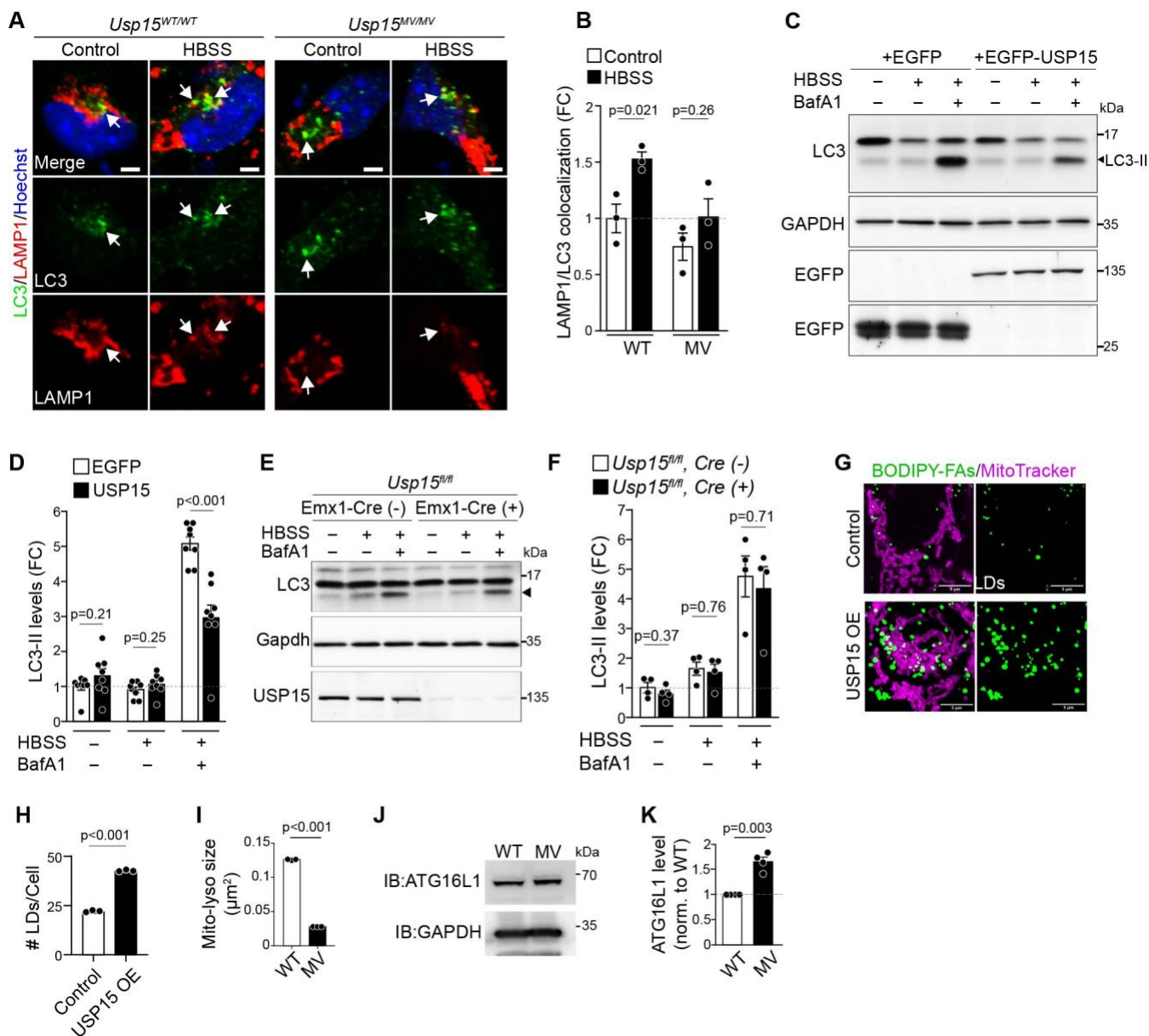
H; 50 um in B, C, and F. FC = fold change.



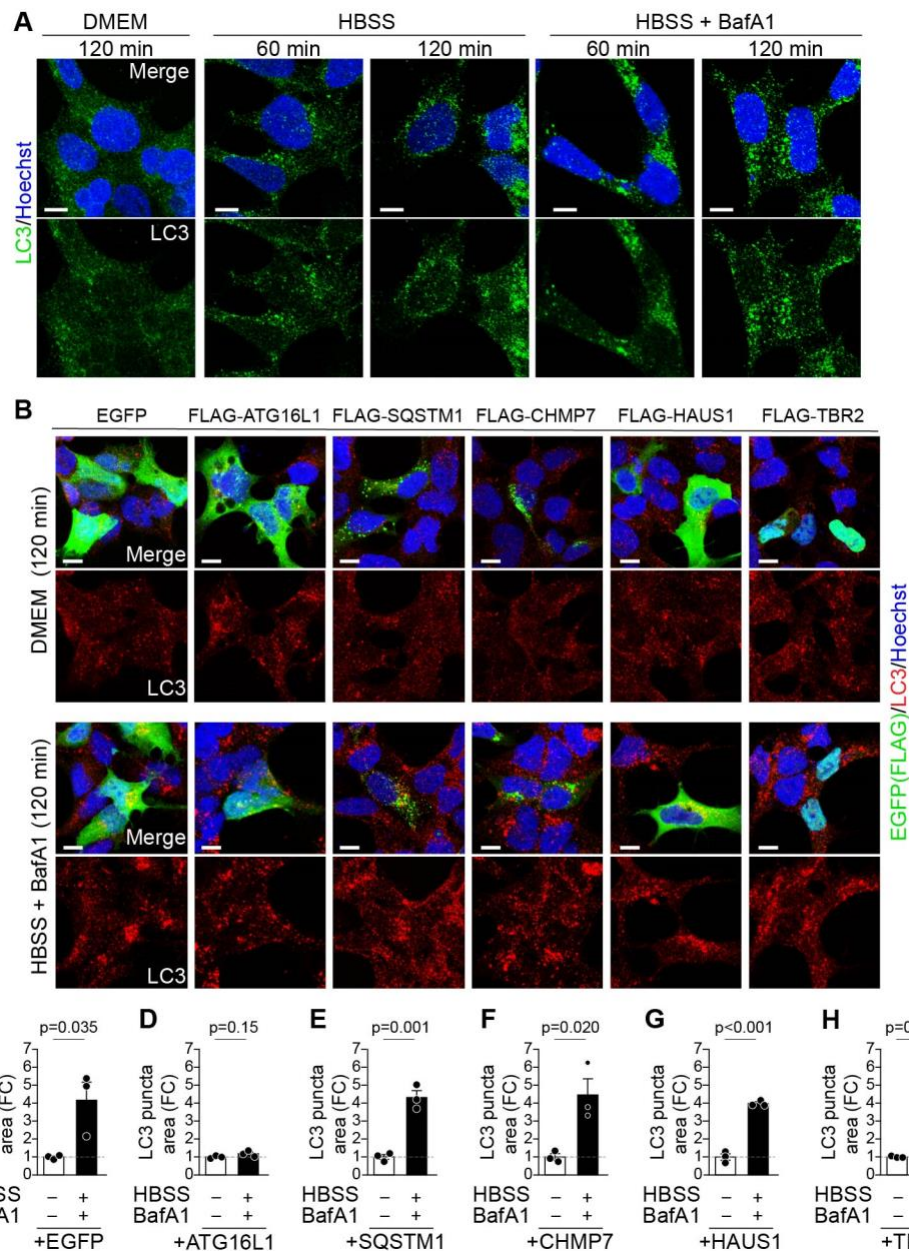
**Supplemental Figure 7. NPC and germinal zone analysis in E15.5 WT and MV cortices and in response to OA treatment.** (A-C) Quantification of VZ, IZ, and CP thickness (A), PAX6+ cell number (B), and TBR2+ cell number (C) in E15.5 WT and MV cortical sections.  $n \geq 4$ . (D) Confocal images of the VZ/SVZ and IZ immunostained for TBR2 (green), PAX6 (red), and pH3 (white). Dashed lines demarcate the VZ/SVZ and IZ boundary. Insets show higher magnification of boxed regions. Arrowheads indicate non-apical pH3+ TBR2+ cells; arrows indicate non-apical pH3+ PAX6+TBR2+ cells. (E, F) Quantification of non-apical pH3+PAX6+ (E) and pH3+TBR2+ (F) cells from (D).  $n \geq 4$ . (G) E13.5 NPC cultures treated with or without OA for 3 days, immunostained for TUJ1 (green) and SOX2 (red). (H, I) SOX2+ (H) and TUJ1+ (I) cells from (G).  $n = 3$ . Hoechst 33258 counterstain (blue) in D and G. Data are mean  $\pm$  SEM; each dot represents one animal or experiment; unpaired t-test. Scale bars: 50  $\mu$ m in D; 10  $\mu$ m in G.



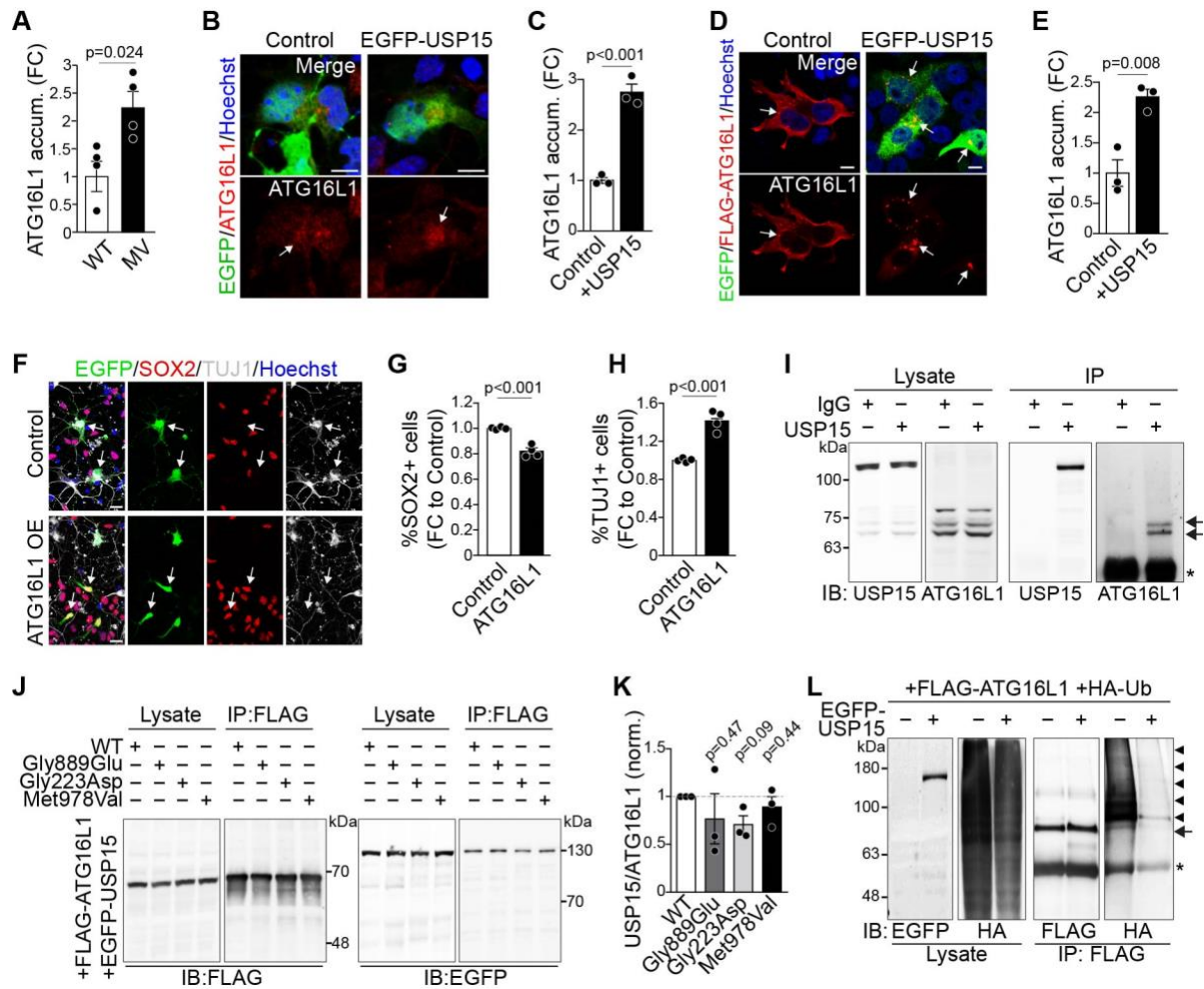
**Supplemental Figure 8. USP15 deubiquitinates select autophagy-related proteins. (A)** WB of lysates and immunoprecipitated FLAG-tagged proteins from HEK293 cells expressing indicated FLAG-tagged proteins and HA-Ub, with or without EGFP-USP15, blotted for HA, EGFP, and FLAG. Arrows and arrowheads indicate target and polyubiquitinated proteins, respectively. Asterisks indicate IgG heavy chain. **(B)** Quantification of normalized ubiquitination levels, expressed relative to samples without USP15.  $n = 3$ ; one-sample t-test. Data are mean  $\pm$  SEM; each dot represents one experiment.



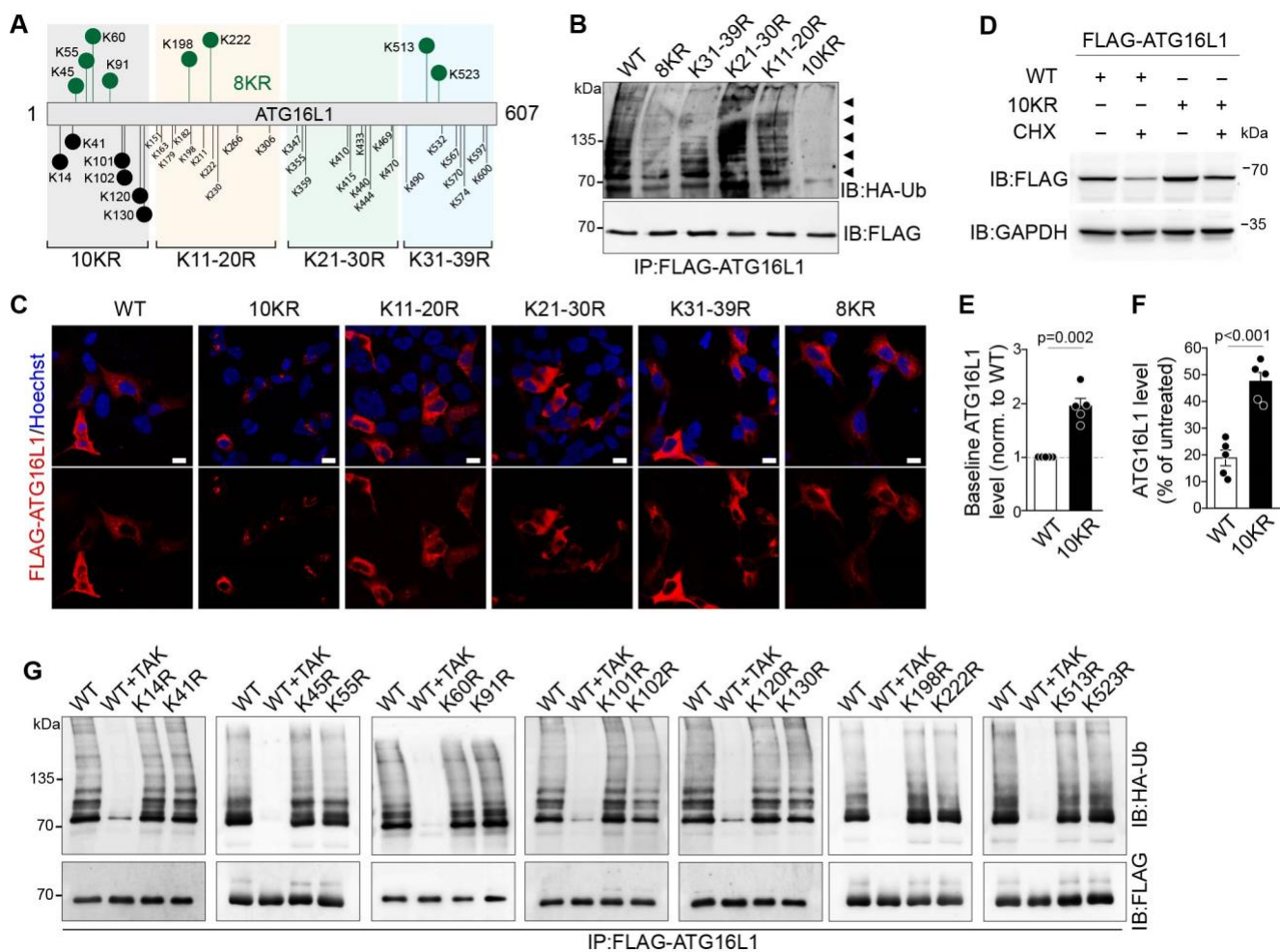
**Supplemental Figure 9. Autophagy flux analysis in WT and MV NPCs and USP15-expressing cells.** (A) Confocal images of E13.5 WT and MV NPCs, treated with or without HBSS (4 hr), immunostained for LC3 (green) and LAMP1 (red). Arrows indicate colocalization of both markers. (B) Quantification of LC3-LAMP1 colocalization from (A), expressed as fold change relative to untreated WT.  $n = 3$ ; unpaired t-test. (C) WB of HEK293 cells expressing EGFP or EGFP-USP15, treated with HBSS alone or with BafA1 (24 hr). (D) Quantification of LC3-II levels from (C), normalized to GAPDH and expressed as fold change relative to untreated EGFP control.  $n = 8$ ; unpaired t-test. (E) WB of NPC cultures from control (Cre-) and *Usp15* cKO (Cre+) mice treated with HBSS alone or with BafA1 (4 hr). (F) Quantification of LC3-II levels from (E), expressed as fold change relative to untreated Cre (-) control.  $n = 4$ ; unpaired t-test. (G) Confocal images of cultured HEK293 cells with or without USP15 overexpression, stained for BODIPY-FA (green) and MitoTracker Green (displayed in magenta). (H) Quantification of LDs in cells from (G).  $n = 3$ ; unpaired t-test. (I) Quantification of mito-lysosome size in NPCs transfected with the Mito-EGFP-mCh reporter.  $n = 3$ ; unpaired t-test. (J) WB of cortical tissues from E13.5 WT and MV embryos, blotted for ATG16L1 and GAPDH. (K) Quantification of ATG16L1 levels from (J), normalized to WT.  $n = 4$ ; one-sample t-test. Hoechst 33258 counterstain (blue) in A. Data are mean  $\pm$  SEM; each dot represents one experiment. Scale bars: 2  $\mu\text{m}$ . FC = fold change.



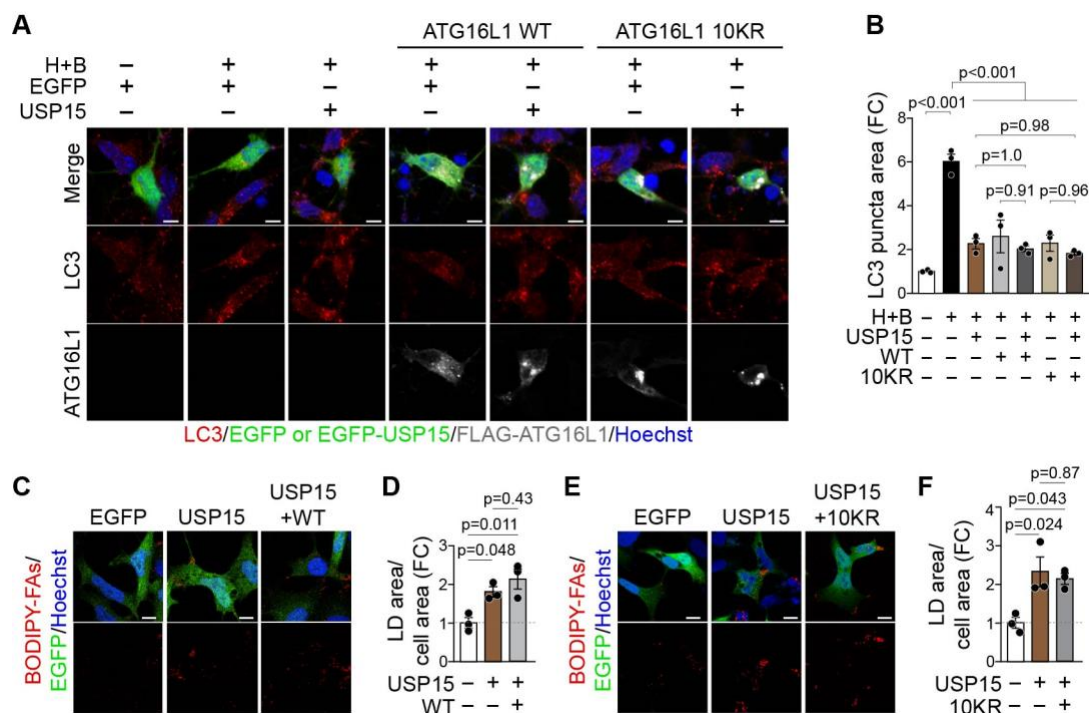
**Supplemental Figure 10. Effect of candidate proteins on autophagosome formation in HEK293 cells.** (A) Confocal images of HEK293 cells treated with or without HBSS or BafA1 at the indicated timepoints, immunostained for LC3 (green). (B) Confocal images of HEK293 cells expressing indicated proteins, treated with or without HBSS and BafA1 (2 hr), immunostained for LC3 (red) and target proteins (green). (C-H) Quantification of LC3 puncta area in cells expressing EGFP (C), ATG16L1 (D), SQSTM1/p62 (E), CHMP7 (F), HAUS1 (G), or TBR2 (H), expressed as fold change relative to untreated control.  $n = 3$ . Hoechst 33258 counterstain (blue). Data are mean  $\pm$  SEM; each dot represents one experiment; unpaired t-test. Scale bars: 5  $\mu$ m. FC = fold change.



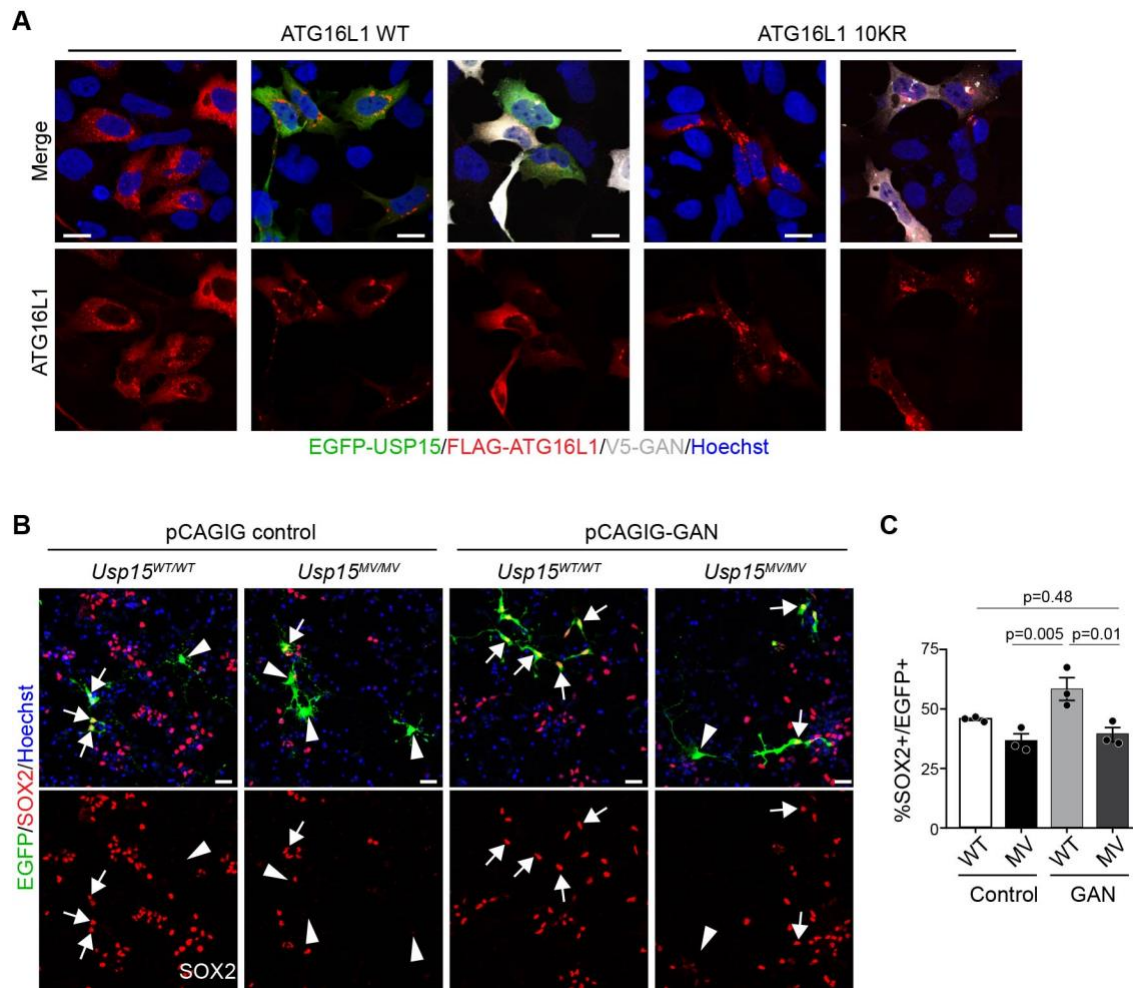
**Supplemental Figure 11. ATG16L1 overexpression phenocopies USP15 mislocalization, and USP15 interacts with ATG16L1.** (A) ATG16L1 accumulation area intensity from the VZ of E15.5 MV cortex, relative to WT.  $n = 4$ ; unpaired t-test. (B) E13.5 NPCs expressing EGFP alone or with USP15, immunostained for ATG16L1 (red) and EGFP (green). Arrows indicate ATG16L1 accumulations. (C) ATG16L1 accumulation area intensity from (B), relative to control.  $n = 3$ ; unpaired t-test. (D) HEK293 cells expressing FLAG-ATG16L1 with or without EGFP-USP15, immunostained for FLAG (red) and EGFP (green). Arrows indicate ATG16L1 accumulations. (E) ATG16L1 accumulation area intensity from (D), relative to control.  $n = 3$ ; unpaired t-test. (F) E13.5 NPC cultures expressing EGFP with or without ATG16L1 for 3 days, immunostained for EGFP (green), SOX2 (red), and TUJ1 (grey). Arrows indicate EGFP+ cells. (G, H) EGFP+ cells positive for SOX2 (G) or TUJ1 (H) from (F), relative to control.  $n = 4$ ; unpaired t-test. (I) WB of lysates and USP15 or IgG immunoprecipitates (IP) from HEK293 cells. Asterisks indicate IgG heavy chains; arrows indicate co-immunoprecipitated ATG16L1. (J) WB of FLAG-immunoprecipitates from HEK293 cells expressing FLAG-ATG16L1 with EGFP-tagged WT or variant USP15, showing co-immunoprecipitated EGFP-USP15. (K) Co-immunoprecipitated EGFP-USP15 normalized to immunoprecipitated FLAG-ATG16L1, relative to WT.  $n = 3$ ; one-sample t-test. (L) WB of immunoprecipitated FLAG-ATG16L1 and lysates from HEK293 cells expressing FLAG-ATG16L1 and HA-Ub with or without EGFP-USP15, probed for EGFP, FLAG, and HA. Asterisks indicate IgG heavy chains. Hoechst 33258 counterstain (blue). Data are mean  $\pm$  SEM; each dot represents one experiment. Scale bars: 5  $\mu$ m in B and D; 10  $\mu$ m in F. FC = fold change.



**Supplemental Figure 12. Mapping of ATG16L1 ubiquitination sites.** (A) Schematic of human ATG16L1 showing lysine residues and grouped lysine-to-arginine mutations (coloured blocks). Lysines reported as potential ubiquitination sites in PhosphoSitePlus are indicated in green. (B) WB of FLAG-immunoprecipitated WT and lysine mutant ATG16L1 from HEK293 cells co-expressing HA-Ub. Arrows indicate polyubiquitination signals. (C) HEK293 cells expressing FLAG-tagged WT or mutant ATG16L1 (red). Hoechst 33258 counterstain (blue). (D-F) Analysis of FLAG-tagged WT and 10KR mutant ATG16L1 in transfected HEK293 cells treated with or without cycloheximide (CHX, 24 hr). (D) WB for FLAG and GAPDH. (E, F) FLAG-ATG16L1 levels normalized to GAPDH at baseline (E,  $n = 5$ , one-sample t-test) and in treated versus untreated groups (F,  $n = 5$ , unpaired t-test). (G) WB of immunoprecipitated WT and lysine mutant ATG16L1 (IP: FLAG) from HEK293 cells co-expressing HA-Ub, with or without E1 inhibitor TAK-243 (TAK). All WB images are representative images from 2 or 3 experiments. Data are mean  $\pm$  SEM; each dot represents one experiment. Scale bars: 10  $\mu$ m. FC = fold change.



**Supplemental Figure 13. USP15 and ATG16L1 regulate autophagy and LD formation.** (A) E13.5 NPC cultures overexpressing FLAG-tagged WT or 10KR mutant ATG16L1, with EGFP or EGFP-USP15, treated with or without HBSS and BafA1 (H+B, 4 hr), immunostained for LC3 (red), EGFP (green), and FLAG (grey). (B) Quantification of LC3 puncta area from (A) (vs untreated EGFP).  $n = 3$ . (C-F) HEK293 cells expressing EGFP, USP15, or USP15 with WT ATG16L1 (C, D) or 10KR ATG16L1 mutant (E, F), stained for BODIPY-FA (red), and the quantification of LD area for WT (D) and 10KR mutant (F).  $n = 3$ . Hoechst 33258 counterstain (blue). Data are mean  $\pm$  SEM; each dot represents one experiment; one-way ANOVA with Tukey's post-hoc test. Scale bars: 5  $\mu$ m in A; 10  $\mu$ m in C and E. FC = fold change.



**Supplemental Figure 14. GAN rescues USP15-induced ATG16L1 accumulation and neurogenesis defects.** (A) HEK293 cells expressing FLAG-ATG16L1 WT or 10KR mutant with or without EGFP-USP15 or V5-GAN, immunostained for FLAG (red), EGFP (green), and V5 (grey). Arrows indicate ATG16L1 accumulations. (B) E13.5 WT and MV NPC cultures transfected with pCAGIG or pCAGIG-GAN for 3 days, immunostained for EGFP (green) and SOX2 (red). Arrows and arrowheads indicate EGFP+ cells positive and negative for SOX2, respectively. (C) Quantification of EGFP+SOX2+ cells from (B).  $n = 3$ . Data are mean  $\pm$  SEM; each dot represents one experiment; one-way ANOVA with Tukey's post-hoc test. Hoechst 33258 counterstain (blue) in A and B. Scale bars: 10  $\mu$ m in A; 25  $\mu$ m in B. FC = fold change.

206 **Supplemental Tables**

207

208 **Supplemental Table 1. Genetic and clinical information**

209

210 **Supplemental Table 2. Differentially expressed proteins in E13.5 MV cortex in comparison to the**  
211 **WT.**

212

213

214 **Supplemental Acknowledgements: Moebius Syndrome Research Consortium**

215 Bryn D. Webb<sup>1,2</sup>, Julie A Jurgens<sup>3-6</sup>, Brenda J. Barry<sup>4,6-7</sup>, Narisu Narisu<sup>8</sup>, Zhongyang Zhang<sup>1</sup>, Wai-Man  
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248

249 **Supplemental Methods:**

250 **Animals:** Both *Usp15* p.Met978Val KI mice and cKO were generated at the Centre for Genome  
251 Engineering at the University of Calgary, using the CRISPR-Cas9 approach. Pairs of sgRNAs  
252 (TGTCTTCGTCACCTTCCAGG and AGGAGAGACTTTCCTGCTGG for KI;  
253 TCTTGTCTTAGTCCCTGGA and CCGTTTTATCCAAGGAATTC for cKO) were used. To prevent  
254 re-cutting of successfully edited allele, targets were modified with silent mutations. RNP comprising  
255 0.62  $\mu$ M each sgRNAs and 0.37  $\mu$ M total of SpCas9 protein was injected along with 10 ng/ $\mu$ l of 298 nt  
256 long single-stranded DNA donor into pronuclear stage mouse embryos. Mosaic pups were recovered,  
257 and the mutant alleles were isolated from founders by back-crossing to WT mice. Mutant alleles were all  
258 confirmed by sequencing. The *Emx1-Cre* mouse line, B6.129S2-*Emx1*<sup>tm1</sup>(cre)Krl/J, was obtained from  
259 the Jackson Laboratory (#005628).

260

261 **Cell culture:** HEK 293 cells (from ATCC) were cultured in DMEM supplemented with 10% FBS and  
262 1% penicillin-streptomycin (P/S) antibiotic. Cells were cultured in a humidified incubator at 37°C with  
263 5% CO<sub>2</sub>. For NPC cultures, cortices were dissected from E13.5 mouse embryos and cultured in  
264 Neurobasal medium, supplemented with 40 ng/mL FGF2, 1x B27, P/S, 0.5 mM L-Glutamine at a  
265 density of 150,000 cells/mL on coverslips coated with laminin (5 mg/mL) and poly-D-lysine (1 mg/mL),  
266 as previously reported (1).

267

268 **Transfection:** For transfection, HEK293 cells were transfected at 50-85% confluency using  
269 polyethylenimine (PEI) or lipofectamine 3000. For NPC transfection, cells were transfected with  
270 Lipofectamine LTX Transfection Reagent according to the manufacturer's protocol.

271

272 **Cell treatments:** Where indicated, cell cultures were treated with the following: 10  $\mu$ M TAK-243 for 4  
273 hr; 20  $\mu$ g/mL cycloheximide for 24 hr; 100 nM Bafilomycin A1 with HEK cells overnight, or with NPCs  
274 for 4 hr; HBSS starvation for 4 hr; 1  $\mu$ M BODIPY C12 for 16 hr; 0.2 mM oleic acid (OA) for 4 or 16 hr.  
275 200 mM OA was diluted to 50 mM in ethanol, then to a final stock of 10 mM OA in 10% fatty acid free  
276 BSA.

277

278 **Plasmids:** A plasmid expressing Xpress-tagged WT human USP15 or a catalytically deficient mutant  
279 was obtained from Addgene (2). Patient-derived variants in USP15 were generated using InFusion site-  
280 directed mutagenesis approach and subcloned into pCAGIG vector (3), pcDNA3 vector, or pEGFP-C1  
281 vector. All clones were verified by sequencing. Other plasmids were obtained from Addgene,  
282 VectorBuilder, or generated using InFusion cloning. Details are provided in the reagent table.

283

284 **Antibodies:** The primary antibodies used for WB were as follows: rabbit anti-GFP (1:5000), chicken  
285 anti-GFP (1:2000), rabbit anti-LC3 (1:500), rabbit anti-GAPDH (1:5000), rabbit anti-USP15 (1:2000),  
286 mouse anti-DDDK (FLAG) (1:2000), rabbit anti-HA (1:2000), chicken anti-V5 (1:5000), mouse anti-  
287 Xpress (1:2000), mouse anti-LAMINB1 (1:200), rabbit anti-ATG16L1 (1:1000).

288 The primary antibodies used for immunostaining were as follows: mouse anti-Xpress (1:2000), goat  
289 anti-SOX2 (1:500), mouse anti-TUJ1 (1:1000), rabbit anti-USP15 (1:500), chicken anti-V5 (1:2000),  
290 guinea pig anti-PLIN2 (1:200), mouse anti-SATB2 (1:500), rabbit anti-TBR1 (1:500), rat anti-CTIP2  
291 (1:750), goat anti-BRN1 (1:500), rabbit anti-NEUN (1:2000), goat anti-ChAT (1:200), rat anti-TBR2  
292 (1:500), rabbit anti-PAX6 (1:500), mouse anti-pH3 (1:500), rat anti-BrdU (1:500), rabbit anti-GFP  
293 (1:2000), chicken anti-GFP (1:2000), rabbit anti-LC3 (1:200), rabbit anti-ATG16L1 (1:200), mouse  
294 anti-DDDK (FLAG) (1:1000), rabbit anti-CC3 (1:500), rat anti-LAMP1 (1:500).

Donkey or goat anti-mouse, anti-rabbit, anti-rat, anti-chicken, anti-goat and anti-guinea pig Alexa Fluor 488, 555, and 647-conjugated secondary antibodies were obtained from ThermoFisher and used at 1:1000 dilutions. HRP-conjugated anti-mouse, anti-chicken and anti-rabbit secondary antibodies were purchased from ThermoFisher and used at a concentration of 1:500-5000.

**qPCR:** Total RNA was extracted using the E.Z.N.A. Total RNA Kit per the manufacturer's protocol. Total RNA was reverse transcribed using 1  $\mu$ g of RNA with the Maxima H Minus cDNA Synthesis Kit. qPCR was performed using PerfeCTa SYBR Green FastMix with amplification for 40 cycles and an annealing temperature of 60°C, using the BioRad CFX Connect system. Threshold cycle (Ct) values were obtained from the amplification plots and used to calculate fold change using the  $\Delta\Delta C_t$  method. In all samples, *Gapdh* mRNA was used as the internal control.

**Immunoblotting:** Cell culture samples were lysed with 1x sample buffer containing 0.1 M DTT, boiled for 5 min, and resolved by SDS-PAGE. Cortical tissues were lysed with Tissue Lysis Buffer (20 mM Tris-HCl, 150 mM NaCl, 1 mM EDTA, 1 mM EGTA and 1% Triton X-100 supplemented with the HALT protease & phosphatase inhibitor and 1 mM PMSF) and a Dounce homogenizer (DWK Life Sciences, 885300-0002). Lysates were centrifuged, and the supernatant was collected for boiling with 2x sample buffer for 5 min. For subcellular fractionation, E15.5 cortical tissues were lysed in cytoplasmic lysis buffer (150 mM KCl, 25 mM Tris-HCl pH 7.4, 1 mM MgCl<sub>2</sub>, and 1 mM DTT), incubated on ice for 15 min with frequent vortexing, and centrifuged at 800  $\times$  g at 4°C for 5 min. The supernatant was collected as the cytoplasmic fraction. The nuclear pellet was washed three times with lysis buffer, then boiled in 1x sample buffer containing 0.1 M DTT for 8 min prior to SDS-PAGE. Following electrophoresis, proteins were transferred to a nitrocellulose membrane, blocked with 5% BSA for 1 hr at room temperature, and probed with the indicated primary antibodies diluted in 5% BSA overnight at 4°C. Membranes were incubated with HRP-conjugated secondary antibodies in PBS for 1 hr at room temperature, imaged using the Amersham Imager 600 (GE Healthcare) and band intensities were quantified using ImageJ (NIH).

**Ubiquitination and deubiquitination assays:** To assess the ubiquitination levels of substrates, HEK293 cells were transfected with HA-Ubiquitin, a FLAG-tagged substrate, and with or without EGFP-USP15 or V5-GAN. Where indicated, cells were treated with 10  $\mu$ M TAK-243 4 hr before lysis. 24 hr after transfection, cells were harvested with ice-cold PBS and lysed in 1x RIPA buffer (50 mM Tris-HCl, 150 mM NaCl, 2 mM EDTA, 1% Triton-X, 0.1% SDS, supplemented with protease & phosphatase inhibitors, 50 mM N-ethylmaleimide and 1 mM PMSF). Lysates were added to anti-DYKDDDDK magnetic agarose beads according to the manufacturer's protocol. The beads and lysates were incubated for 30 mins at room temperature, washed twice with PBS + 0.1% SDS, and washed once with Milli-Q water. Bound proteins were eluted with 3x FLAG peptides in the Thermomixer (Eppendorf, F1.5) for 10 min at 1400 rpm, and the supernatant was boiled with 2x sample buffer containing 0.1 M DTT for 5 min.

For the in vitro deubiquitination assay, FLAG-ATG16L1 was bound to the FLAG-beads as described above and commercially obtained USP15 was added to the indicated samples. They were incubated for two hr and then eluted with the FLAG peptides as described above.

**USP15 enzymatic activity:** Deubiquitinase activity was assessed using the Deubiquitinase Assay Kit according to the manufacturer's protocol. FLAG-USP15 WT and the indicated mutant constructs were transfected in HEK293 cells. Cells were harvested with ice-cold PBS and lysed in Gentle Lysis Buffer (GLB) containing 25 mM Tris-HCl (pH 7.4), 10 mM NaCl, and 1% Triton X-100 supplemented with the HALT protease & phosphatase inhibitor and 1 mM PMSF. Lysates were added to anti-DYKDDDDK

magnetic agarose beads according to the manufacturer's protocol. The beads and lysates were incubated for 30 mins at room temperature, washed twice with PBS + 0.02% Tween-20, and washed once with Milli-Q water. Bound proteins were eluted with 3× FLAG peptides in the Thermomixer (Eppendorf, F1.5) for 10 min at 1400 rpm. The isolated USP15 proteins were stored at -80°C. Equal protein concentrations were confirmed by WB analysis. A serial dilution of WT USP15 was used to determine the optimal protein input for the assay. USP15 proteins were added to the provided fluorescent substrate in a 96 well plate, and a plate reader was used to measure change in fluorescence every 2 min.

**Protein co-immunoprecipitation:** To detect the interaction between USP15 and ATG16L1, HEK293 cells were transfected with plasmids encoding FLAG-ATG16L1 together with either EGFP or EGFP-USP15. Cells were lysed in Gentle Lysis Buffer (GLB) containing 25 mM Tris-HCl (pH 7.4), 2 mM EDTA, 1 mM EGTA, 10 mM NaCl, 0.5% Triton X-100, and 10% glycerol, supplemented with HALT protease and phosphatase inhibitor cocktail and 1 mM PMSF. Lysates were incubated with anti-DYKDDDDK magnetic agarose beads overnight at 4°C and washed once with PBS. Bound proteins were eluted with 3× FLAG peptides in the Thermomixer (Eppendorf, F1.5) for 10 min at 1400 rpm, and the supernatant was boiled with 2× sample buffer containing 0.1 M DTT for 5 min.

To detect the endogenous interaction between USP15 and ATG16L1, HEK293 cells were also lysed in GLB and then precleared with Protein A Dynabeads for 4 hr. The bead-antibody complex was prepared per the manufacturer's protocol, using rabbit anti-USP15 (1:200) for a 1 hr incubation. Pre-cleared samples were added to the antibody-bead complex and incubated overnight at 4°C and washed once with PBS + 0.02% Tween-20. Bound proteins were eluted with 50 mM glycine (pH 2.8) for 10 min and the supernatant was boiled with 2x sample buffer containing 0.1 M DTT for 5 min.

**Palmitoylation assay:** USP15 palmitoylation was assessed using the Click S-Palmitoylation Detection Kit (Badrilla) according to the manufacturer's protocol with modifications. Briefly, HEK293 cells expressing EGFP or EGFP-USP15 were incubated with the supplied palmitic acid analogue in Opti-MEM for 24 hr. Cells were lysed in 1× RIPA buffer (50 mM Tris-HCl pH 7.5, 150 mM NaCl, 2 mM EDTA, 1% Triton X-100, 0.1% SDS) supplemented with protease and phosphatase inhibitor cocktail, 50 mM N-ethylmaleimide, and 1 mM PMSF. Lysates were subjected to GFP immunoprecipitation using Protein A magnetic beads according to the manufacturer's protocol. Following bead washing, click chemistry labeling was performed using the Badrilla kit reagents scaled to one 24-well plate equivalent per sample and incubated for 1 hr at room temperature. Immunoprecipitated proteins were eluted by boiling in 1× sample buffer containing 0.1 M DTT for 5 min and analyzed by SDS-PAGE.

**High performance liquid chromatography (HPLC) with mass spectrometry (MS):** Cortices from E13.5 WT and MV embryos ( $n = 5$  embryos each from two separate litters) were dissected and lysed with a buffer containing 0.1M Tris-HCl (pH=8) and 1% SDS, supplemented with the HALT protease & phosphatase inhibitor, 1 mM PMSF, and 0.1 M DTT. Cell lysates were homogenized with a Dounce homogenizer, sonicated 3× at 38% amplitude for 12 sec, and centrifuged at 2000 g for 5 min. The proteins in the resulting supernatant were precipitated with trichloroacetic acid (TCA), to a final concentration of 20%. The precipitated protein was pelleted and washed three times with ice cold acetone. Tryptic peptides were analyzed on an Orbitrap Fusion Lumos Tribrid mass spectrometer (Thermo Scientific) operated with Xcalibur (version 4.4.16.14) and coupled to a Thermo Scientific Easy-nLC (nanoflow Liquid Chromatography) 1200 system. A total mass of 2 ug tryptic peptides were loaded onto a C18 trap (75  $\mu\text{m} \times 2$  cm; Acclaim PepMap 100, P/N 164946; ThermoScientific) at a flow rate of 2  $\mu\text{L}/\text{min}$  of solvent A (0.1% formic acid in LC-MS grade water). Peptides were eluted using a 120 min gradient from 5 to 40% (5% to 28% in 105 min followed by an increase to 40% B in 15 min) of solvent B (0.1% formic acid in 80% LC-MS grade acetonitrile) at a flow rate of 0.3  $\mu\text{L}/\text{min}$  and separated on a C18 analytical column (75  $\mu\text{m} \times 50$  cm; PepMap RSLC C18; P/N ES803;

ThermoScientific). Peptides were then electrosprayed using 2.1 kV voltage into the ion transfer tube (300°C) of the Orbitrap Lumos operating in positive mode. The Orbitrap first performed a full MS scan at a resolution of 120000 FWHM to detect the precursor ion having a m/z between 375 and 1575 and a +2 to +7 charge. The Orbitrap AGC (Auto Gain Control) and the maximum injection time were set at 4e5 and 50 ms, respectively. The Orbitrap was operated using the top speed mode with a 3 second cycle time for precursor selection. The most intense precursor ions presenting a peptidic isotopic profile and having an intensity threshold of at least 5000 were isolated using the quadrupole and fragmented with HCD (30% collision energy) in the ion routing multipole. The fragment ions (MS2) were analyzed in the ion trap at a rapid scan rate. The AGC and the maximum injection time were set at 1e4 and 35 ms, respectively, for the ion trap. Dynamic exclusion was enabled for 45 seconds to avoid reacquisition of same precursor ion having a similar m/z (plus or minus 10 ppm).

**Proteomic data and bioinformatics analysis:** Spectra data obtained during mass-spectrometry were matched to peptide sequences from a Mouse FASTA reference file obtained from UniProt on March 20<sup>th</sup>, 2024 using MaxQuant (v2.5.2.0)(4). MaxQuant Settings were set to default except for the following; Variable modifications included oxidation (M), acetyl (n-term), deamidation (NQ); Label free quantification was turned on, First search peptide tolerance was set to 10 under the orbitrap settings, the identifier rule for the FASTA file was set to the UniProt; Maximum peptide mass was set to 6600 daltons, minimum peptide length was set to 5 amino acids; match between runs was turned on.

Statistical analysis was performed on MSstatsShiny UI (v0.1.0; <https://msstatsshiny.com/app/MSstatsShiny>), running MSstats (v.4.2.0)(5, 6). The MaxQuant files “proteinGroups” and “evidence” were used for the analysis, while the annotation file was created according to MSstats directions. Unique peptides were included in the analysis. For data processing, log2 was defined for data transformation and equalize medians was the method chosen for normalization. The options “Use all features”, “assume all NA as censored”, “Do not apply cutoff to censor missing values”, and “Model based imputation” and “remove runs with over 50% missing values” were enabled. Statistical inference was performed using custom pairwise comparisons, and the data was imported to Excel for final assessment. Significantly enriched proteins for each group were found using a p-value cut off of 0.05. Up and downregulated hits were defined to have a fold change of 1.5. Gene ontology (GO) analysis of biological process and cellular components were conducted using g:Profiler (7) with term size 500-3000. For pathway enrichment analysis, upregulated proteins in the MV cortex were analyzed using ShinyGo (8) with pathway size 240-3000.

**Immunofluorescence:** For immunostaining of cortical sections, embryonic brains were dissected in ice-cold HBSS, fixed in 4% paraformaldehyde (PFA) at 4°C overnight, cryopreserved in 30% sucrose, embedded in Tissue-Tek O.C.T embedding media, and cryosectioned coronally at 16 µm. Sections were blocked with 5% BSA in PBS containing 0.3% Triton X-100 for 1 hr at room temperature, then incubated with primary antibodies in blocking buffer overnight at 4°C, followed by the appropriate secondary antibodies in PBS for 1 hr at room temperature. For analysis of CN 6 nuclei, 2-month-old mice brains were prepared in a similar way except that adult mice were perfused with PBS and 4% PFA prior to the collection of brains in 4% PFA for 48 hr and were cryopreserved in 30% sucrose for another 48 hr. Each brain was coronally sectioned at 16 µm, with every section collected throughout the extent of the CN 6 region (Bregma -5.80, -5.68) (9). For immunostaining of cultured HEK293 cells and primary NPCs, cells plated on glass coverslips were fixed with 4% PFA for 15 min at room temperature and permeabilized with 0.3% Triton X-100 for 10 min. Cells were incubated with primary antibodies in PBS for 1 hr at room temperature, followed by the appropriate secondary antibodies in PBS for 1 hr at room temperature. Where indicated, BODIPY 493/503 (1:500) was included with the secondary

antibody incubation to label neutral lipids. Nuclei were counterstained with Hoechst 33258 (Sigma), and coverslips were mounted on glass slides using Aqua-Poly/Mount.

**Fatty acid pulse-chase assay:** NPCs were isolated from E13.5 WT and MV cortices and cultured in Neurobasal medium on live cell imaging dishes (Cellvis, D35-20-1.5-N) (~700,000 cells). After 24 hr, the fluorescent FA precursor BODIPY 558/568 C<sub>12</sub> was added. Following 16 hr pulsing with the BODIPY, cells were chased in either glucose or glucose-free media for 24 hr. To label mitochondrial network, cells were incubated with MitoTracker Green (50 nM for 30 mins), then washed 3 times with culture medium. Live cell imaging was performed using a cellVivo incubation module, maintaining the environment at 5% CO<sub>2</sub> and 37°C.

**Oxygen consumption rates:** OCR measurements were performed as previously described (10). Briefly, NPCs were isolated from E13.5 WT and MV cortices and ~40,000 cells were seeded with Neurobasal medium in a 96 well plate coated with laminin (5 mg/mL) and poly-D-lysine (1 mg/mL). After 24 hr, a Resipher sensing lid (Lucid Labs, NS32-10A) was placed on the plate and the Resipher system was used to detect oxygen concentrations. Afterwards, the cell lysates from each well were analyzed for total protein content using the BCA assay, and the OCRs were normalized to total protein.

**Mitophagy assay:** NPCs were isolated from E13.5 WT and MV cortices and cultured in Neurobasal medium on live cell imaging dishes (Cellvis, D35-20-1.5-N) (~700,000 cells). Cells were transfected with cox8-GFP-mCherry (11) and incubated for 24 hrs. Cells were subsequently imaged using the Olympus Spinning Disk Confocal System (Olympus SD-IX83-SPINSR) using a 60× oil immersion objective and a cellVivo live cell incubator system was used for live cell imaging at 37 °C and 5% CO<sub>2</sub>. Mitolysosomes were analyzed using the MitoQC plugin (12) on FIJI, measuring the mCherry puncta (mitolysosomes) that did not co-localize with mito-GFP puncta (mitochondria not in lysosomes).

**In utero electroporation:** The pCAGIG empty vector or pCAGIG-USP15 WT was mixed with 0.5% trypan blue in PBS at 2 ug/uL and injected into LV of E13.5 embryos of CD1 mice using mouth pipetting. Following injection, the square electroporator CUY21 EDIT (TR Tech, Japan) was used to deliver five 50 ms pulses of 40-50 V with 950 ms intervals per embryo as described previously (1).

**BrdU injection and analysis:** To label S-phase cells, pregnant mice received a single intraperitoneal injection of BrdU (2 mg/mouse) at E13.5 and were euthanized at E18.5. Embryonic brains were dissected in ice-cold HBSS under a stereomicroscope, fixed in 4% PFA in PBS overnight at 4°C, cryoprotected in 30% sucrose overnight, and cryosectioned coronally at 16 um. Sections were first processed for immunofluorescence as described above, with the exception of the BrdU antigen retrieval steps described below. For BrdU detection, sections were treated with 1 N HCl at 4°C for 10 min, rinsed, then incubated in 2 N HCl at room temperature for an additional 10 min, followed by 10 min at 37°C to denature DNA. Sections were neutralized by immersion in PBS for 2 min, then blocked with 1 M glycine, 1% Triton X-100, and 5% normal donkey serum in PBS for 30 mins at room temperature. Sections were incubated with anti-BrdU primary antibody in 5% normal donkey serum in PBS overnight at 4°C, followed by the appropriate secondary antibody diluted in PBS for 1 hr at room temperature.

**Microscopy and quantification:** Images were captured using an Olympus FV3000 confocal microscope with 20×, 40× or 60× objectives, except for the live-cell pulse-chase assay. For cell cultures, representative images were selected from at least three independent experiments that were used for quantifications. For the analysis of embryonic and postnatal brain, three to four anatomically matched sections per brain were imaged from animals derived from at least two independent mothers per group. To quantify CN 6 motor neurons, 2 um Z-stack images were acquired with a 20× objective across

coronal sections around Bregma -5.80 mm and -5.68 mm. Z-stacks were maximum-intensity projected to yield images representative of anatomically comparable regions. For each section, cells were counted bilaterally within the CN 6 region (Supplemental Figure 6G), including only those immunoreactive for both ChAT and NEUN. Counts from both sides were averaged per section, and section averages were subsequently averaged across all sections per brain. For quantification of USP15 localization, the fluorescence intensity of USP15 immunosignals in the nucleus (marked by Hoechst 33258) and the surrounding region (cytoplasm) were measured using the FIJI software (13). To quantify LC3 puncta and ATG16L1 accumulation, 0.5  $\mu$ m Z-stack images were acquired under identical exposure settings across all conditions within the groups. Regions of interest were manually drawn around individual cells, and a fluorescence threshold was applied to Z-projected images consistently across all images within an experiment. Discrete LC3-positive puncta or ATG16L1 accumulations were identified using the Analyze Particles function with a size criterion of 0.02-10  $\mu$ m<sup>2</sup>. Total particle area ( $\mu$ m<sup>2</sup>) was measured for quantifying LC3 puncta area. The total area of LC3 puncta per cell was compared across untreated, HBSS-starved, and HBSS + BafA1-treated conditions. ATG16L1 accumulation was quantified by normalizing the integrated fluorescence density of ATG16L1-positive puncta (puncta area  $\times$  mean puncta intensity) to the integrated fluorescence density of the whole cell (cell area  $\times$  mean cell intensity). 25-200 cells per condition were analyzed across at least three independent experiments, and data are presented as mean  $\pm$  SEM. For quantifying BODIPY fluorescence signals in E15.5 cortical tissues, the same threshold based on the cell-free region as a baseline was applied to all images to remove the background, followed by measuring pixel areas above the threshold. For live-cell pulse-chase experiments, number and size of lipid droplets were assessed using Particle Analysis tool on FIJI. Mitochondrial branch length was assessed using MiNA (14). Colocalization analyses were performed using JaCOP (15). All images were processed with Fluoview software (Olympus), ImageJ, and Adobe Photoshop. The contrast of some images was adjusted for better visualization. Raw images were used for quantification and analysis. PAX6 or SOX2, TBR2, and Hoechst staining were used to define the VZ, SVZ, and CP, respectively.

516

## 517 KEY RESOURCES TABLE:

| REAGENT or RESOURCE | SOURCE          | IDENTIFIER |
|---------------------|-----------------|------------|
| <b>Antibodies</b>   |                 |            |
| ATG16L1 (rabbit)    | Cell Signalling | 8089       |
| BrdU (rat)          | Abcam           | ab6326     |
| BRN1 (Pou3f3, goat) | Novus           | NBP1-49872 |
| CC3 (rabbit)        | Cell Signalling | 9661       |
| ChAT (goat)         | Millipore       | AB144P     |
| CTIP2 (rat)         | Abcam           | ab18465    |
| FLAG (mouse)        | Sigma           | F1804      |
| GAPDH (rabbit)      | Sigma           | G9545      |
| GFP (chicken)       | EMD Millipore   | AB16901    |
| GFP (rabbit)        | Abcam           | ab290      |
| HA (rabbit)         | Abcam           | ab9110     |
| LAMINB1 (mouse)     | Abcam           | ab8982     |
| LAMP1 (rat)         | Abcam           | ab25245    |
| LC3 (rabbit)        | Cell Signalling | 2775       |
| NEUN (rabbit)       | Abcam           | ab177487   |
| PAX6 (rabbit)       | Biolegend       | 901301     |
| pH3 (mouse)         | Cell Signaling  | 9706       |

|                                                                                                                  |                |              |
|------------------------------------------------------------------------------------------------------------------|----------------|--------------|
| PLIN2 (guinea pig)                                                                                               | Biosynth       | 20R-AP002    |
| SATB2 (mouse)                                                                                                    | Abcam          | ab51502      |
| SOX2 (goat)                                                                                                      | R&D Systems    | AF2018       |
| TBR1 (rabbit)                                                                                                    | Abcam          | ab31940      |
| TBR2 (rat)                                                                                                       | Invitrogen     | 14-4875-80   |
| TUJ1 (mouse)                                                                                                     | Biolegend      | 801201       |
| USP15 (rabbit)                                                                                                   | Cell Signaling | 66310        |
| V5 (chicken)                                                                                                     | Abcam          | Ab9113       |
| Xpress (mouse)                                                                                                   | Thermo         | R910-25      |
| <b>Vectors and plasmids</b>                                                                                      |                |              |
| pEGFP-C1                                                                                                         | Clontech       | Discontinued |
| pCAGIG                                                                                                           | Addgene        | 11159        |
| pcDNA3                                                                                                           |                |              |
| FLAG-ATG16L1 (human): WT, 10KR, K11-20R, K21-30R, K31-39R, 8KR                                                   | VectorBuilder  |              |
| FLAG-ATG16L1 (human): K14R, K41R, K45R, K55R, K60R, K91R, K101R, K102R, K120R, K130R, K198R, K222R, K513R, K523R | This study     |              |
| pCAGIG-ATG16L1 (human)                                                                                           | This study     |              |
| FLAG-CHMP7 (human)                                                                                               | VectorBuilder  |              |
| pCLBW-COX8-EGFP-mCherry                                                                                          | Addgene        | 78520        |
| pcDNA3-FLAG-GAN (human)                                                                                          | Genscript      |              |
| pCAGIG-GAN (human)                                                                                               | This study     |              |
| pcDNA3-V5-GAN (human)                                                                                            | This study     |              |
| FLAG-HAUS1 (human)                                                                                               | VectorBuilder  |              |
| PLIN2-V5-Apex2 (mouse)                                                                                           | Addgene        | 170573       |
| FLAG-SQSTM1 (human)                                                                                              | VectorBuilder  |              |
| FLAG-TBR2 (human)                                                                                                | VectorBuilder  |              |
| FLAG-TMEM41B (human)                                                                                             | VectorBuilder  |              |
| pcDNA3-HA-Ubiquitin (human)                                                                                      | Addgene        | 18712        |
| pcDNA4C-Xpress-His-USP15 (human)                                                                                 | Addgene        | 23216        |
| pcDNA4C-Xpress-His-USP15 C269A (human)                                                                           | Addgene        | 23217        |
| pCAGIG-USP15 WT (human)                                                                                          | This study     |              |
| pEGFP-USP15 (human): WT, Gly223Asp, Gly889Glu, Met978Val                                                         | This study     |              |
| pcDNA3-FLAG-USP15 (human): WT, Gly223Asp, Gly889Glu, Met978Val, C298A                                            | This study     |              |
| pcDNA3-Xpress-USP15 (human): WT, Gly223Asp, Gly889Glu, Met978Val                                                 | This study     |              |
| <b>Chemicals, peptides, and recombinant proteins</b>                                                             |                |              |
| Anti-DYKDDDDK Magnetic Agarose                                                                                   | ThermoFisher   | A36797       |
| Aqua-Poly/Mount                                                                                                  | Polysciences   | 18606        |
| B27                                                                                                              | Thermo Fisher  | 17504044     |
| Bafilomycin A1                                                                                                   | Abcam          | ab120497     |
| BODIPY 493/503                                                                                                   | Thermo Fisher  | D3922        |

|                                               |                       |                        |
|-----------------------------------------------|-----------------------|------------------------|
| BODIPY 558/568 C12                            | Thermo Fisher         | D3835                  |
| BSA                                           | BioShop               | 005PJD                 |
| BrdU                                          | Sigma Aldrich         | B9285-250MG            |
| Cycloheximide                                 | Sigma Aldrich         | C7698                  |
| DMEM                                          | Thermo Fisher         | 11995065               |
| DTT                                           | BioBasic              | DB0058                 |
| Dynabeads Protein A                           | ThermoFisher          | 1002D                  |
| Fatty Acid Free BSA                           | Sigma Aldrich         | A8806                  |
| FBS                                           | Wisent                | 098-150                |
| FGF2                                          | Corning               | CB-40060A              |
| Halt Protease and Phosphatase Inhibitor       | ThermoFisher          | 78443                  |
| HBSS                                          | Wisent                | 311-513 CL             |
| Hoechst 33258                                 | Sigma Aldrich         | 94403                  |
| InFusion polymerase                           | TakaraBio             | 638948                 |
| L-glutamine                                   | Wisent                | 609-065-EL             |
| Laminin                                       | Corning               | 354232                 |
| Lipofectamine 3000                            | ThermoFisher          | L3000015               |
| Lipofectamine LTX                             | ThermoFisher          | 15338030               |
| MitoTracker Green                             | ThermoFisher          | M7514                  |
| NEM                                           | Sigma Aldrich         | E3876                  |
| Neurobasal                                    | ThermoFisher          | 21103049               |
| Oleic acid                                    | Sigma Aldrich         | O1008                  |
| Penicillin-streptomycin                       | Wisent                | 450-201-EL             |
| PerfeCTa SYBR Green FastMix                   | Quanta Bio            | 95072                  |
| PMSF                                          | Sigma Aldrich         | 7110-OP                |
| Pierce 3x DYKDDDDK Peptide                    | ThermoFisher          | A36805                 |
| Poly-D-Lysine                                 | Sigma Aldrich         | P6407                  |
| PEI                                           | Sigma Aldrich         | 765090                 |
| Protein A magnetic beads                      | Bio-Rad               | 1614013 (discontinued) |
| Recombinant Human USP15 Protein               | SinoBiological        | U515-380G              |
| TAK-243 (MLN7243)                             | Selleck Chemicals LLC | S8341                  |
| Triton X-100                                  | Sigma Aldrich         | T8787                  |
| Trypsin-EDTA                                  | Wisent                | 325-043-CL             |
| <b>Critical commercial assays</b>             |                       |                        |
| Maxima H Minus cDNA Synthesis Kit             | Thermo Fisher         | M1681                  |
| E.Z.N.A. Total RNA Kit                        | OmegaTek              | R6834                  |
| Click S-palmitoylation Detection-775 Kit      | Badrilla              | K010-410               |
| Deubiquitinase Assay Kit                      | Abcam                 | ab241002               |
| <b>Deposited data</b>                         |                       |                        |
| Raw and analyzed data                         | This paper            |                        |
| <b>Experimental models: cell lines</b>        |                       |                        |
| HEK293                                        | ATCC                  | CRL-1573               |
| <b>Experimental models: organisms/strains</b> |                       |                        |
| CD1 mouse                                     | Charles River         | 022                    |
| USP15 p.Met978Val knock-in                    | This study            |                        |
| USP15 conditional knockout                    | This study            |                        |

| <b>Oligonucleotides</b>                                                                                                                                                                  |                         |                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------|
| <i>Usp15</i> KI genotyping<br>F: ATTGATACCGTAGCAGCTGTGAT<br>R: AGCCATGGTTTTCTTGCAGT                                                                                                      | This paper              | N/A                                                                               |
| <i>Usp15</i> cKO genotyping<br>Upstream LoxP:<br>F:GGAGAGTTGAAAACCTTGGGTGATA<br>R:TTTGATCTCCCATCTGGTATTTG<br>Downstream LoxP:<br>F:CAAATACCAGATGGGAGATCAAA<br>R:GCAAAAGTCAAGAATGTGAACGTA | This paper              | N/A                                                                               |
| <i>Usp15</i> qPCR<br>F: TCCAGATGAGAAGGAGGCCA<br>R: GGATGCACCTGGGGACTTAG                                                                                                                  | This paper              | N/A                                                                               |
| <i>Gapdh</i> qPCR<br>F: ACCACAGTCCATGCCATCAC<br>R: CACCACCCTGTTGCTGTAGCC                                                                                                                 | This paper              | N/A                                                                               |
| <i>USP15</i> p.Met978Val mutagenesis – on pcDNA4C-Xpress-His-USP15 (human)<br>F: AAAGTGTGTGCACACTAACTAAGC GGCC<br>R: GTGTGCACACAGTTTTTCATTTTCT ATATCATTG                                 | This paper              | N/A                                                                               |
| <i>USP15</i> p.Gly223Asp mutagenesis – on pcDNA4C-Xpress-His-USP15 (human)<br>F: GCCAAGGGATCCTTCTACTCCTAA TGTGAAAAACT<br>R: GAAGGATCCCTTGGCCATGTTCC ATCT                                 | This paper              | N/A                                                                               |
| <i>USP15</i> p.Gly889Glu mutagenesis – on pcDNA4C-Xpress-His-USP15 (human)<br>F: GATGGGAGAAGGACACTATACTG CTTTTGCA<br>R: TGTCCTTCTCCCATCCCTCCATAGTG                                       | This paper              | N/A                                                                               |
| gRNA for KI line generation (TGTCTTCGTCACCTTTCCAGG and AGGAGAGACTTTCCTGCTGG)                                                                                                             | This paper              | N/A                                                                               |
| gRNA for cKO line generation (TCTTGTTCTTAGTCCCTGGA and CCGTTTTATCCAAGGAATTC)                                                                                                             | This paper              | N/A                                                                               |
| <b>Software and algorithms</b>                                                                                                                                                           |                         |                                                                                   |
| Fiji                                                                                                                                                                                     | Schindelin et al., 2012 | <a href="https://imagej.net/software/fiji/">https://imagej.net/software/fiji/</a> |
| Fluoview                                                                                                                                                                                 | Olympus                 | <a href="http://www.olympuscanada.com">http://www.olympuscanada.com</a>           |

|                                                     |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| g:Profiler                                          | Kolberg et al., 2023         | <a href="https://biit.cs.ut.ee/gprofiler/gost">https://biit.cs.ut.ee/gprofiler/gost</a>                                                                                                                                                                                                                                                                                                                                                                         |
| GeneMatcher                                         | Sobreira et al., 2015        | <a href="https://genematcher.org">https://genematcher.org</a>                                                                                                                                                                                                                                                                                                                                                                                                   |
| JaCOP                                               | Bolte and Cordelières, 2006  | <a href="https://imagej.net/plugins/jacop">https://imagej.net/plugins/jacop</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| MaxQuant (v2.5.2.0)                                 | Tyanova et al., 2016         | <a href="https://gitlab.c3s.unito.it/mariia.makarova/maxquant_mariia2/-/tree/main/MaxQuant_v2.5.2.0">https://gitlab.c3s.unito.it/mariia.makarova/maxquant_mariia2/-/tree/main/MaxQuant_v2.5.2.0</a>                                                                                                                                                                                                                                                             |
| MiNA                                                | Valente et al., 2017         | <a href="https://imagej.net/plugins/mina">https://imagej.net/plugins/mina</a>                                                                                                                                                                                                                                                                                                                                                                                   |
| MitoQC plugin                                       | Montava-Garriga et al., 2020 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| MSstatsShiny UI (v0.1.0), running MSstats (v.4.2.0) | D. Kohler et al., 2023       | <a href="https://msstatsshiny.com/app/MSstatsShiny">https://msstatsshiny.com/app/MSstatsShiny</a>                                                                                                                                                                                                                                                                                                                                                               |
| Photoshop                                           | Adobe                        | <a href="https://www.adobe.com/ca/products/photoshop/">https://www.adobe.com/ca/products/photoshop/</a>                                                                                                                                                                                                                                                                                                                                                         |
| ShinyGo                                             | Ge et al., 2020              | <a href="https://bioinformatics.sdstate.edu/go/">https://bioinformatics.sdstate.edu/go/</a>                                                                                                                                                                                                                                                                                                                                                                     |
| Xcalibur (version 4.4.16.14)                        | Thermo Fisher                | <a href="https://www.thermofisher.com/ca/en/home/industrial/mass-spectrometry/liquid-chromatography-mass-spectrometry-lc-ms/lc-ms-software/lc-ms-data-acquisition-software/xcalibur-data-acquisition-interpretation-software.html">https://www.thermofisher.com/ca/en/home/industrial/mass-spectrometry/liquid-chromatography-mass-spectrometry-lc-ms/lc-ms-software/lc-ms-data-acquisition-software/xcalibur-data-acquisition-interpretation-software.html</a> |

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**Table S1 : Summary of Clinical Features**

|                             | <b>Proband 1<br/>21y F (deceased 23y)</b>                                                                                                                                                                      | <b>Proband 2<br/>10y M</b>                                                                                                                                                                                                                                                        | <b>Proband 3<br/>31 weeks (deceased)</b>                                                                                                |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Variant<br>(NM_001252078.2) | USP15 c.668G>A, p.(Gly223Asp)                                                                                                                                                                                  | USP15 c.2932A>G, p.(Met978Val)                                                                                                                                                                                                                                                    | USP15 c.2666G>A, p.(Gly889Glu)                                                                                                          |
| Pregnancy and delivery      | Ventriculomegaly on prenatal US<br><br>Term delivery, required resuscitation with intubation, feeding difficulties requiring discharge on NG<br><br>BW 6 <sup>th</sup> centile<br>Birth L and HC not available | Suspected micrognathia and talipes on prenatal US. Query vanished dizygotic twin at 10 weeks<br><br>Delivery at 41+5 weeks, required CPAP and intubation for respiratory distress<br><br>BW 27 <sup>th</sup> centile<br>L 48 <sup>th</sup> centile<br>HC 45 <sup>th</sup> centile | A fetus with IUGR, ascites and severe oligohydramnios. Information is limited due to intrauterine fetal death at 31 weeks of gestation. |
| Growth                      | Short stature<br><br>Wt 3 <sup>rd</sup> centile at 11y<br>Ht -4.2 SD at 11y<br>HC 25 <sup>th</sup> centile at 11y                                                                                              | Short stature<br><br>Wt -2.3 SD at 7.5y<br>Ht -4 SD at 7.5y<br>HC 13 <sup>th</sup> centile at 7.5y                                                                                                                                                                                | Mild growth restriction noted in 3 <sup>rd</sup> trimester                                                                              |
| CNS - Seizures              | Refractory epilepsy, onset DOL1 (staring spells, myoclonic jerks, photosensitive)                                                                                                                              | Neonatal seizure DOL1, no recurrence of clinical seizures but abnormal EEGs suggestive of predisposition to generalized seizure                                                                                                                                                   |                                                                                                                                         |
| CNS - Neurodevelopment      | GDD/ID (severe, non-verbal)<br><br>Symptoms of neuroregression in adolescence (increased crying spells, decreased mobility and function), new onset insomnia<br><br>Walks with abnormal crouched gait          | GDD/moderate to severe ID, autism (non-verbal, uses communication device)<br><br>Since 2021 – episodes of altered mental status/decreased tone<br><br>Poor balance                                                                                                                | No obvious CNS anomalies on fetal autopsy                                                                                               |

|                          |                                                                                                                                   |                                                                                                                                                                                                       |                                                                                                                                                            |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cranial nerve deficits   | Absent olfactory bulbs (CN1), optic nerve hypoplasia on eye exam                                                                  | Congenital Facial Palsy<br>Bilateral abducens palsy/esotropia, restricted bilateral horizontal gaze post strabismus surgeries, normal vertical gaze                                                   | NA                                                                                                                                                         |
| CNS - Brain MRI findings | MRI - absent olfactory bulbs, cerebral atrophy                                                                                    | MRI - Abnormal brainstem with cleft and dysmorphic appearance, pons is small and tear dropped shaped on sagittal view. CN6 hypoplastic or absent bilaterally, CN7s missing bilaterally. Thin medulla. | NA                                                                                                                                                         |
| GI/Feeding               | G-tube fed, GERD requiring fundoplication.<br>GI malrotation<br><br>Severe constipation                                           | G-tube fed, required fundoplication,<br><br>Constipation with persistent distention<br>Diagnosis of gut dysmotility                                                                                   | NA                                                                                                                                                         |
| Endocrine                | Adrenal insufficiency<br>Hypogonadism (absent puberty), clitoromegaly<br>Osteoporosis<br>Recurrent pancreatitis, unclear etiology | Undescended testicle, left<br><br>Bones appear diffusely demineralized on foot X-rays                                                                                                                 | NA                                                                                                                                                         |
| MSK                      | Post axial polydactyly, clubbing, camptodactyly, broad toes<br><br>Scoliosis                                                      | 5th digit clinodactyly, overlapping toes<br><br>Talipes valgus, left                                                                                                                                  | NA                                                                                                                                                         |
| Cardiac / Respiratory    | Normal echo<br><br>Central sleep apnea                                                                                            | Large ASD, secundum type, requiring open repair<br>AV nodal block (Mobitz II)<br><br>History of aspiration pneumonias                                                                                 | Severe pulmonary hypoplasia noted at 34 weeks gestation, in context of massive ascites causing thoracic compression<br><br>No cardiac anomalies on autopsy |

|                                  |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                  |           |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| ENT                              | <p>Microtia of left ear, low set ears</p> <p>Conductive HL with tubes</p>                                                                                                                                                                                                                                                                 | <p>Low set ears</p> <p>Recurrent otitis media, inconsistent hearing evaluation</p> <p>Cleft palate, complete, s/p repair</p> <p>Micrognathia</p> | NA        |
| Other                            | <p>Poor enamel, possible taurodontism</p> <p>Cataract (onset in adolescence)</p> <p>Lacrimal duct obstruction</p> <p>Thrombocytopenia (normal BMA, no immunodeficiency)</p> <p>Wilms tumour</p>                                                                                                                                           | <p>Suspected lacrimal duct obstruction</p> <p>Food allergies to dairy, casein, beef</p>                                                          |           |
| Other variants detected          | <p>BCL11B c.640+1G&gt;C, VUS, maternally inherited. Predicted to cause inframe skipping of exon 3 which is typically absent in naturally occurring BCL11B isoforms. Known pathogenic variants are typically in exon 4. Affected individuals have reduced type 2 innate lymphoid cells but flow cytometry was normal for this proband.</p> | NR                                                                                                                                               | NR        |
| Variant pathogenicity prediction | CADD 27.1                                                                                                                                                                                                                                                                                                                                 | CADD 22.6                                                                                                                                        | CADD 28.1 |

Supplemental Table S2. Differentially expressed proteins in the E13.5 MV cortex in comparison to the WT.

| uniprot ID   | Gene name         | protein name                             | log2FC     | SE       | Tvalue   | DF | pvalue   | MissingPercentage | ImputationPercer |
|--------------|-------------------|------------------------------------------|------------|----------|----------|----|----------|-------------------|------------------|
| A0A023J6F7   | ND1               | NADH-ubiquinone oxidoreductase ch        | -0.3633715 | 0.232873 | -1.56038 | 5  | 0.179418 | 0.3               | 0                |
| A0A075DCB1   | ND5               | NADH-ubiquinone oxidoreductase ch        | -0.028975  | 0.641393 | -0.04518 | 8  | 0.965075 | 0.25              | 0.25             |
| A0A087WP63   | Gm42715           | Predicted gene 42715                     | -0.0590373 | 0.356249 | -0.16572 | 3  | 0.878916 | 0.7               | 0.2              |
| A0A087WPF7-3 | Aut5 Kiaa0442     | Autism susceptibility gene 2 protein h   | 0.0388739  | 0.176281 | 0.22052  | 8  | 0.830988 | 0.383333333       | 0.383333333      |
| A0A087WPL5   | Dhx9              | RNA helicase (EC 3.6.4.13) (DEAH box     | -0.1592181 | 0.639172 | -0.2491  | 1  | 0.844581 | 0.7               | 0                |
| A0A087WQH8   | Slc35a4           | Solute carrier family 35, member A4      | -0.202855  | 0.208663 | -0.97216 | 8  | 0.359442 | 0.266666667       | 0.266666667      |
| A0A087WQN7   | Xrn1              | 5'-3' exoribonuclease 1 (EC 3.1.13.-)    | -0.0274613 | 0.327294 | -0.0839  | 8  | 0.935194 | 0.45              | 0.45             |
| A0A087WQQ5   | Ktn1              | Kinectin 1                               | 0.181837   | 0.930142 | 0.19549  | 3  | 0.857498 | 0.5               | 0                |
| A0A087WR50   | Fn1               | Fibronectin                              | 0.6101726  | 0.221714 | 2.75207  | 4  | 0.051265 | 0.4               | 0                |
| A0A087WRA4   | Mndal             | Myeloid nuclear differentiation antigen  | -0.7891705 | 1.089373 | -0.72443 | 4  | 0.508908 | 0.65              | 0.25             |
| A0A087WRE8   | Clasp1            | CLIP associating protein 1               | -0.1851885 | 0.16516  | -1.12127 | 8  | 0.294701 | 0.345             | 0.345            |
| A0A087WRM0   | Cdv3              | Carnitine deficiency-associated gene e   | 0.0263484  | 0.219938 | 0.1198   | 5  | 0.909307 | 0.3               | 0                |
| A0A087WS04   | Ktn1              | Kinectin 1                               | 0.753329   | 0.63876  | 1.17936  | 5  | 0.291309 | 0.3               | 0                |
| A0A0A0MQ99   | Swi5              | DNA repair protein SWI5 homolog (Prc     | 0.2796685  | 0.245367 | 1.1398   | 8  | 0.287345 | 0.3875            | 0.3875           |
| A0A0A0MQH5   | Macf1             | Microtubule-actin crosslinking factor 1  | 1.1066351  | 1.190812 | 0.92931  | 2  | 0.450834 | 0.6               | 0                |
| A0A0A6YW87   | Cnih4             | Protein cornichon homolog 4 (Cornich     | -0.3346158 | 0.418573 | -0.79942 | 7  | 0.450318 | 0.1               | 0                |
| A0A0A6YWX1   | Usp19             | ubiquitinyl hydrolase 1 (EC 3.4.19.12)   | -0.1213602 | 0.263365 | -0.46081 | 8  | 0.657207 | 0.505             | 0.505            |
| A0A0A6YX73   | Prkar2a           | cAMP-dependent protein kinase type II    | 0.2160356  | 0.156928 | 1.37666  | 8  | 0.205914 | 0.2125            | 0.2125           |
| A0A0A6YXS5   | Inpp4a            | Inositol polyphosphate-4-phosphatas      | -0.1151911 | 0.24681  | -0.46672 | 3  | 0.672504 | 0.5               | 0                |
| A0A0A6YY91   | Ncam1             | Neural cell adhesion molecule 1          | -0.167269  | 0.179669 | -0.93098 | 8  | 0.3791   | 0.266666667       | 0.266666667      |
| A0A0B4J1E2   | Snw1              | SNW domain-containing protein 1          | 0.1201085  | 0.191067 | 0.62862  | 8  | 0.547122 | 0.210714286       | 0.210714286      |
| A0A0D2X7Z2   | Eef1akmt1 EEF1AK1 | EEF1A lysine methyltransferase 1 (EC :   | 0.1244373  | 0.674228 | 0.18456  | 7  | 0.858805 | 0.366666667       | 0.266666667      |
| A0A0F6AIX6   | Ldah              | Lipid droplet-associated hydrolase (Lip  | 0.0213886  | 0.608542 | 0.03515  | 7  | 0.972944 | 0.3               | 0.2              |
| A0A0G2JFA5   | Atrx              | Transcriptional regulator ATRX (EC 3.6   | 0.8839131  | 0.337954 | 2.61548  | 3  | 0.079309 | 0.5               | 0                |
| A0A0G2JFI6   | Cnn3              | Calponin 3, acidic                       | 1.4864592  | 0.894249 | 1.66224  | 6  | 0.147526 | 0.4               | 0.2              |
| A0A0G2JFV8   | Ptbp2             | Polypyrimidine tract binding protein 2   | -0.6481105 | 0.379404 | -1.70823 | 8  | 0.125973 | 0.266666667       | 0.266666667      |
| A0A0G2JG32   | Gpn3              | GPN-loop GTPase 3                        | -0.2227045 | 0.323401 | -0.68863 | 1  | 0.616083 | 0.7               | 0                |
| A0A0H2UH17   | Ubp2l             | Ubiquitin-associated protein 2-like      | -0.0184437 | 0.087013 | -0.21196 | 1  | 0.867028 | 0.7               | 0                |
| A0A0J9YU67   | Msi1              | Musashi RNA-binding protein 1            | -0.3008148 | 0.45846  | -0.65614 | 5  | 0.540722 | 0.3               | 0                |
| A0A0J9YUR2   | Specc1            | Sperm antigen with calponin homolog      | 0.5703986  | 0.433801 | 1.31489  | 8  | 0.224987 | 0.5               | 0.5              |
| A0A0M3HEP3   | Lias LIAS         | Lipoyl synthase, mitochondrial (EC 2.8   | -0.0043118 | 0.273609 | -0.01576 | 2  | 0.988857 | 0.6               | 0                |
| A0A0N4SUH8   | Nfu1              | NFU1 iron-sulfur cluster scaffold hom    | 0.1958536  | 0.169777 | 1.15359  | 8  | 0.281965 | 0.2               | 0.2              |
| A0A0N4SV71   | Creb5             | Cyclic AMP-responsive element-bindin     | -0.0281619 | 1.004509 | -0.02804 | 1  | 0.982157 | 0.7               | 0                |
| A0A0N4SVC2   | Tra2a             | Transformer 2 alpha                      | 0.1478438  | 0.277655 | 0.53247  | 8  | 0.608865 | 0.33              | 0.33             |
| A0A0N4SVL0   | Eif4g3            | Eukaryotic translation initiation factor | -0.635732  | 0.391167 | -1.62522 | 2  | 0.24562  | 0.6               | 0                |
| Q8BHX1       | Haus1 Ccdc5       | HAUS augmin-like complex subunit 1 (     | 3.0457683  | 0.620487 | 4.90868  | 2  | 0.039085 | 0.6               | 0                |

|            |                |                                          |            |          |          |    |          |              |              |
|------------|----------------|------------------------------------------|------------|----------|----------|----|----------|--------------|--------------|
| A0A0R4IZY9 | Dus3l          | tRNA-dihydrouridine(47) synthase [NA     | -0.2328517 | 0.182992 | -1.27247 | 8  | 0.238941 | 0.36         | 0.36         |
| A0A0R4J000 | Kctd5          | Potassium channel tetramerisation do     | -0.3473652 | 0.325433 | -1.06739 | 5  | 0.334597 | 0.5          | 0.2          |
| A0A0R4J005 | Lims1          | LIM and senescent cell antigen-like-con  | -0.0923271 | 0.170248 | -0.54231 | 8  | 0.602381 | 0.4111111111 | 0.4111111111 |
| A0A0R4J030 | Amer2          | APC membrane recruitment protein 2 (     | 0.3225493  | 0.323038 | 0.99849  | 6  | 0.356593 | 0.45         | 0.25         |
| A0A0R4J044 | Pcbp4          | Poly(rC) binding protein 4               | -0.0975839 | 0.14407  | -0.67734 | 8  | 0.517296 | 0.29         | 0.29         |
| A0A0R4J049 | Prmt5          | Protein arginine N-methyltransferase 5   | -0.0250353 | 0.098461 | -0.25427 | 8  | 0.805704 | 0.293548387  | 0.293548387  |
| A0A0R4J065 | Atg4b          | Cysteine protease (EC 3.4.22.-)          | 0.1375583  | 0.139361 | 0.98706  | 8  | 0.352521 | 0.3          | 0.3          |
| A0A0R4J078 | Ubxn4          | UBX domain-containing protein 4 (UB      | -0.1398833 | 0.111042 | -1.25973 | 8  | 0.243272 | 0.34         | 0.34         |
| A0A0R4J0E4 | Ints7          | Integrator complex subunit 7             | -0.4509627 | 0.334443 | -1.3484  | 8  | 0.214459 | 0.5375       | 0.5375       |
| Q8C0J2     | Atg16l1 Apg16l | Autophagy-related protein 16-1 (APG1     | 2.23202    | 0.160452 | 13.9108  | 2  | 0.005128 | 0.6          | 0            |
| A0A0R4J0M1 | Tbcc           | Tubulin-specific chaperone C             | 0.1417249  | 0.258391 | 0.54849  | 8  | 0.598324 | 0.4625       | 0.4625       |
| A0A0R4J0M9 | Vcpip1         | ubiquitinyl hydrolase 1 (EC 3.4.19.12)   | 0.2186519  | 0.227163 | 0.96253  | 8  | 0.363969 | 0.471428571  | 0.471428571  |
| A0A0R4J0N5 | Pdcd2          | Programmed cell death 2                  | -0.2089155 | 0.390532 | -0.53495 | 8  | 0.607228 | 0.425        | 0.425        |
| A0A0R4J0S4 | Llg1           | LLGL1 scribble cell polarity complex co  | -0.1206973 | 0.204692 | -0.58965 | 8  | 0.571697 | 0.344827586  | 0.344827586  |
| A0A0R4J107 | Apeh           | Acylamino-acid-releasing enzyme (EC 3    | 0.1466353  | 0.134757 | 1.08815  | 8  | 0.308223 | 0.383333333  | 0.383333333  |
| A0A0R4J124 | SrpK2          | non-specific serine/threonine protein I  | 0.3611207  | 0.225333 | 1.60261  | 8  | 0.147689 | 0.433333333  | 0.433333333  |
| A0A0R4J169 | Lrrfip2        | Leucine-rich repeat flightless-interacti | -0.0092811 | 0.339782 | -0.02731 | 6  | 0.979094 | 0.6          | 0.4          |
| A0A0R4J174 | Ecsit          | Evolutionarily conserved signaling inte  | 0.1478391  | 0.194971 | 0.75826  | 7  | 0.473046 | 0.45         | 0.35         |
| A0A0R4J1E3 | Dbn1           | Drebrin 1                                | -0.0265404 | 0.486797 | -0.05452 | 4  | 0.959135 | 0.4          | 0            |
| A0A0R4J206 | Mocs2 MOCS2    | Molybdopterin synthase catalytic subu    | 0.2315978  | 0.289548 | 0.79986  | 4  | 0.4686   | 0.4          | 0            |
| A0A0R4J259 | Syncrip        | Synaptotagmin binding, cytoplasmic R     | -0.0730735 | 0.232107 | -0.31483 | 8  | 0.760948 | 0.35         | 0.35         |
| A0A0R4J2D3 | Mia3           | MIA SH3 domain ER export factor 3        | 0.4633608  | 0.245916 | 1.88423  | 8  | 0.096277 | 0.515384615  | 0.515384615  |
| A0A0R5RP31 | Scn5a          | Sodium channel protein                   | 0.6423781  | 0.443931 | 1.44702  | 7  | 0.191144 | 0.4          | 0.3          |
| A0A0U1RNL9 | Maz            | MYC-associated zinc finger protein (pu   | 0.1724204  | 0.365947 | 0.47116  | 8  | 0.650106 | 0.285714286  | 0.285714286  |
| A0A0U1RPJ4 | Rnf40          | E3 ubiquitin protein ligase (EC 2.3.2.2  | 0.0196419  | 0.237052 | 0.08286  | 8  | 0.935999 | 0.469230769  | 0.469230769  |
| A0A140T8P2 | Igkv6-20       | Immunoglobulin kappa variable 6-20       | 1.1968623  | 0.956825 | 1.25087  | 7  | 0.251169 | 0.1          | 0            |
| Q9CZ82     | Med18          | Mediator of RNA polymerase II transcrip  | 2.1014259  | 0.261308 | 8.04195  | 2  | 0.015113 | 0.6          | 0            |
| A0A158RFV3 | Paip2b         | Poly(A) binding protein interacting pro  | -0.384063  | 0.775043 | -0.49554 | 7  | 0.635397 | 0.5          | 0.4          |
| A0A1B0GRJ5 | Gm45799        | Predicted gene 45799                     | -0.0971233 | 0.417672 | -0.23254 | 1  | 0.854548 | 0.7          | 0            |
| A0A1B0GRU6 | Anapc15        | Anaphase promoting complex C subur       | 1.0591054  | 1.207563 | 0.87706  | 4  | 0.429972 | 0.4          | 0            |
| A0A1B0GSX7 | Nup98          | Nuclear pore complex protein Nup98-l     | -0.0882123 | 0.101828 | -0.86629 | 8  | 0.411558 | 0.296969697  | 0.296969697  |
| A0A1D5RMH7 | Psd3           | Pleckstrin and Sec7 domain containing    | Inf        | NA       | NA       | NA | NA       | NA           | NA           |
| A0A1L1SS87 | Slc44a2        | Choline transporter-like protein         | 0.2872214  | 0.363783 | 0.78954  | 2  | 0.512534 | 0.6          | 0            |
| A0A1L1SS90 | Acy1           | N-acyl-aliphatic-L-amino acid amidohy    | 0.0074274  | 0.189042 | 0.03929  | 8  | 0.969622 | 0.414285714  | 0.414285714  |
| A0A1L1SV25 | Actn4          | Alpha-actinin-4 (Non-muscle alpha-acti   | 0.4020815  | 0.395991 | 1.01538  | 8  | 0.339646 | 0.033333333  | 0.033333333  |
| A0A1L1SV73 | Usp47          | Ubiquitin carboxyl-terminal hydrolase    | 0.1183134  | 0.079789 | 1.48282  | 8  | 0.176407 | 0.338095238  | 0.338095238  |
| A0A1N9M4K1 | Siae           | Sialic acid acetyltransferase            | 1.5411613  | 0.835262 | 1.84512  | 4  | 0.138772 | 0.4          | 0            |
| A0A1Q1PRS6 | Dmd dmd        | Dystrophin Dp71c isoform                 | -0.3354421 | 0.543821 | -0.61682 | 3  | 0.581001 | 0.5          | 0            |

|            |                  |                                         |            |          |          |   |          |             |             |
|------------|------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| A0A1W2P7Q6 | Xpot             | Exportin-T (Exportin(tRNA)) (tRNA exp   | -0.1226326 | 0.169443 | -0.72374 | 7 | 0.492698 | 0.425       | 0.325       |
| A0A1W2P872 | Nova2            | RNA-binding protein Nova-2              | 0.5670442  | 0.292555 | 1.93825  | 8 | 0.088586 | 0.20625     | 0.20625     |
| A0A1Y7VK19 | Isca2            | Iron-sulfur cluster assembly 2          | -0.125089  | 0.211535 | -0.59134 | 6 | 0.575879 | 0.45        | 0.25        |
| A0A286YCX6 | Trappc8          | Trafficking protein particle complex 8  | 0.7038028  | 0.471691 | 1.49208  | 7 | 0.179308 | 0.45        | 0.35        |
| A0A286YDA2 | Nolc1            | Nucleolar and coiled-body phosphopr     | -0.0968447 | 0.285723 | -0.33895 | 8 | 0.743376 | 0.241666667 | 0.241666667 |
| A0A286YDU2 | Atxn2            | Ataxin 2                                | 0.3841638  | 0.513185 | 0.74859  | 8 | 0.475537 | 0           | 0           |
| A0A2I3BQS1 | Dlgap5           | DLG associated protein 5                | 0.0115913  | 0.557025 | 0.02081  | 8 | 0.983907 | 0.38        | 0.38        |
| A0A2I3BQW1 | Haus4            | HAUS augmin-like complex, subunit 4     | 0.0210255  | 0.378104 | 0.05561  | 5 | 0.957808 | 0.3         | 0           |
| A0A2I3BR81 | Nt5dc2           | 5'-nucleotidase domain containing 2     | 0.0543149  | 0.14231  | 0.38167  | 8 | 0.712646 | 0.22173913  | 0.22173913  |
| A0A2I3BRS9 | Mapk1ip1l        | MAPK-interacting and spindle-stabilizir | -0.0313185 | 0.200756 | -0.156   | 8 | 0.879896 | 0           | 0           |
| A0A2I3BRW0 | Spcs1            | Signal peptidase complex subunit 1 (M   | 0.1393063  | 0.253085 | 0.55043  | 8 | 0.597052 | 0.425       | 0.425       |
| A0A2I3BS49 | Timm23           | Translocase of inner mitochondrial me   | 0.3399365  | 0.343208 | 0.99047  | 8 | 0.350953 | 0.3         | 0.3         |
| A0A2R8VHM0 | Kctd17           | Potassium channel tetramerisation doi   | -0.0473349 | 0.945774 | -0.05005 | 6 | 0.961708 | 0.5         | 0.3         |
| A0A2R8VHP9 | Pcbp2            | Poly(rC) binding protein 2              | 0.3561545  | 0.416649 | 0.85481  | 7 | 0.420948 | 0.35        | 0.25        |
| A0A2R8VJU9 | Cd47             | CD47 antigen (Rh-related antigen, inte  | 0.554679   | 1.104401 | 0.50224  | 6 | 0.633392 | 0.2         | 0           |
| A0A2R8VK29 | Polr3h           | DNA-directed RNA polymerase subunit     | -0.4800836 | 0.497879 | -0.96426 | 4 | 0.389522 | 0.4         | 0           |
| Q9D394-2   | Rufy3 D5Bwg0860e | Protein RUFY3 (Rap2-interacting prote   | 1.9267965  | 0.720845 | 2.67297  | 6 | 0.03688  | 0.55        | 0.35        |
| A0A338P6K9 | Qser1            | Glutamine and serine-rich protein 1     | 0.2191922  | 0.350584 | 0.62522  | 7 | 0.551655 | 0.642857143 | 0.542857143 |
| A0A338P7E3 | Rnaset2b         | Ribonuclease T2B                        | -0.2564446 | 0.176769 | -1.45073 | 7 | 0.190144 | 0.433333333 | 0.333333333 |
| Q9D7I5     | Lhpp             | Phospholysine phosphohistidine inor     | 1.7598934  | 0.354597 | 4.96309  | 2 | 0.038281 | 0.6         | 0           |
| A0A385JBX3 | Atg5             | Autophagy protein 5                     | 0.5031293  | 0.510093 | 0.98635  | 6 | 0.362052 | 0.566666667 | 0.366666667 |
| A0A3B2WAQ7 | Anks1            | Ankyrin repeat and SAM domain contai    | -0.1975437 | 0.514718 | -0.38379 | 8 | 0.711133 | 0.516666667 | 0.516666667 |
| A0A3B2WBC6 | Polr2m           | Polymerase (RNA) II (DNA directed) po   | 0.16894    | 0.176735 | 0.9559   | 8 | 0.367115 | 0.025       | 0.025       |
| A0A3B2WBL1 | Rpl10a           | Ribosomal protein                       | -0.2766009 | 0.346549 | -0.79816 | 8 | 0.447822 | 0.194736842 | 0.194736842 |
| A0A3Q4L2S1 | Nubp2            | Nucleotide binding protein 2            | 0.555694   | 0.361904 | 1.53547  | 8 | 0.163217 | 0.1         | 0.1         |
| A0A494B953 | Nedd4l           | HECT-type E3 ubiquitin transferase (E   | 0.0124879  | 0.075073 | 0.16634  | 8 | 0.872015 | 0.291666667 | 0.291666667 |
| A0A494B9V8 | Ptar1            | Protein prenyltransferase alpha subun   | -0.0560182 | 0.30371  | -0.18445 | 2 | 0.870672 | 0.6         | 0           |
| A0A494BB10 | Asdurf           | Asnsd1 upstream reading frame           | 0.2573506  | 0.373314 | 0.68937  | 7 | 0.512788 | 0.3         | 0.2         |
| A0A494BB75 | Wdr26            | WD repeat-containing protein 26         | 0.1225951  | 0.271263 | 0.45194  | 8 | 0.663313 | 0.3         | 0.3         |
| A0A4P3APB9 | Mapkapk2         | MK2 long isoform                        | 0.0073826  | 0.652503 | 0.01131  | 8 | 0.99125  | 0.525       | 0.525       |
| A0A4U9FGA5 | Ighg2c           | IgG2c                                   | 0.1509469  | 0.336934 | 0.448    | 4 | 0.677346 | 0.4         | 0           |
| A0A571BDP3 | Vcpkmt           | Valosin containing protein lysine (K) m | -0.685749  | 0.564496 | -1.2148  | 5 | 0.278676 | 0.3         | 0           |
| A0A571BEI2 | Aak1             | AP2 associated kinase 1                 | -0.1880859 | 0.352658 | -0.53334 | 6 | 0.612968 | 0.566666667 | 0.366666667 |
| A0A571BG24 | Limch1           | LIM and calponin homology domains 1     | -0.304596  | 0.284122 | -1.07206 | 8 | 0.314965 | 0.49        | 0.49        |
| A0A5F8MPN7 | Qtrt2 QTRT2      | Queuine tRNA-ribosyltransferase acces   | -0.3136743 | 0.282293 | -1.11117 | 8 | 0.298774 | 0.583333333 | 0.583333333 |
| A0A5H1ZRL3 | Nelfb            | Negative elongation factor B            | 0.7065048  | 0.387524 | 1.82312  | 8 | 0.105745 | 0.37        | 0.37        |
| A0A5K1VVQ9 | Ttn              | Titin                                   | 1.0255915  | 0.380533 | 2.69514  | 4 | 0.054367 | 0.55        | 0.15        |
| A0A6I8MX21 | Gm10033          | Predicted gene 10033                    | -1.2597256 | 0.819857 | -1.53652 | 3 | 0.221999 | 0.5         | 0           |

|            |                     |                                          |            |          |          |    |          |             |             |
|------------|---------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| A0A7T0LZ52 | Vkorc1              | Vitamin K 2,3-epoxide reductase comp     | 0.1266488  | 0.314697 | 0.40245  | 2  | 0.726294 | 0.6         | 0           |
| A0A8Z1RZY0 |                     | deleted                                  | 0.1110379  | 0.164804 | 0.67376  | 8  | 0.519453 | 0.56        | 0.56        |
| A0A991EKZ2 | Fxr2                | FMR1 autosomal homolog 2                 | 0.3816796  | 0.279876 | 1.36374  | 8  | 0.209781 | 0.366666667 | 0.366666667 |
| A0A991ENV6 | Sfpq                | Splicing factor proline/glutamine rich ( | 0.1441503  | 0.170697 | 0.84448  | 8  | 0.422934 | 0.254411765 | 0.254411765 |
| A0A991ENW0 | H1f10               | H1.10 linker histone                     | 0.1880762  | 0.257343 | 0.73084  | 8  | 0.485728 | 0.1         | 0.1         |
| A0A9L6KDL3 | Creld1              | Cysteine-rich with EGF-like domains 1    | 0.6557895  | 0.316862 | 2.06963  | 3  | 0.130288 | 0.5         | 0           |
| A0A9S4HM55 | Pcf11               | PCF11 cleavage and polyadenylation fa    | -0.2854547 | 0.240491 | -1.18697 | 3  | 0.320667 | 0.65        | 0.15        |
| A0JNY7     | Eif4g2              | Eukaryotic translation initiation factor | -0.1367222 | 0.096656 | -1.41452 | 8  | 0.194929 | 0.271428571 | 0.271428571 |
| A1A4T2     | Ganab               | Alpha glucosidase 2 alpha neutral subu   | 0.3004346  | 0.276789 | 1.08543  | 3  | 0.357164 | 0.5         | 0           |
| A2A432     | Cul4b Kiaa0695      | Cullin-4B (CUL-4B)                       | -0.3147153 | 0.350408 | -0.89814 | 8  | 0.395337 | 0.415384615 | 0.415384615 |
| A2A4P0     | Dhx8                | ATP-dependent RNA helicase DHX8 (E       | -0.0158165 | 0.412552 | -0.03834 | 6  | 0.970662 | 0.2         | 0           |
| A2A4U6     | Zfp334              | Zinc finger protein 334                  | 0.143464   | 0.291157 | 0.49274  | 8  | 0.635437 | 0.266666667 | 0.266666667 |
| A2A5R8     | Stau1               | Staufen double-stranded RNA binding      | 0.4678563  | 0.329045 | 1.42186  | 8  | 0.192859 | 0.406666667 | 0.406666667 |
| A2A5Z6     | Smurf2              | E3 ubiquitin-protein ligase SMURF2 (E    | -0.0185759 | 0.102974 | -0.18039 | 1  | 0.886379 | 0.7         | 0           |
| A2A654     | Bptf                | Bromodomain PHD finger transcription     | -0.0890879 | 0.348525 | -0.25561 | 8  | 0.804698 | 0.475       | 0.475       |
| A2A699     | Fam171a2            | Protein FAM171A2                         | 0.0211523  | 0.204141 | 0.10362  | 7  | 0.92038  | 0.48        | 0.38        |
| A2A6A1     | Gpatch8 Gpatch8 Kia | G patch domain-containing protein 8      | 0.4030681  | 0.401622 | 1.0036   | 8  | 0.344958 | 0.52        | 0.52        |
| A2A6P4     | Vcf1 D11Wsu99e      | Family with sequence similarity 104, m   | -0.2746497 | 0.313061 | -0.87731 | 2  | 0.472847 | 0.6         | 0           |
| A2A6Q5     | Cdc27               | Cell division cycle protein 27 homolog   | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| A2A6T1     | Cdr2l Gm21          | Cerebellar degeneration-related protei   | 0.8730126  | 0.379866 | 2.29821  | 4  | 0.083103 | 0.6         | 0.2         |
| A2A791     | Zmym4 Kiaa0425 Zf   | Zinc finger MYM-type protein 4 (Zinc fin | 0.3057821  | 0.604451 | 0.50588  | 8  | 0.62658  | 0.461538462 | 0.461538462 |
| A2A7B5     | Prdm2               | PR domain containing 2, with ZNF dom     | 0.3339804  | 0.814753 | 0.40992  | 3  | 0.709382 | 0.5         | 0           |
| A2A7P9     | Svbp Ccdc23         | Small vasohibin-binding protein          | -0.2612833 | 0.169049 | -1.54561 | 3  | 0.219917 | 0.5         | 0           |
| A2A7S7     | Yars1 Yars          | Tyrosine--tRNA ligase (EC 6.1.1.1) (Tyr  | 0.0414073  | 0.155406 | 0.26645  | 8  | 0.796635 | 0.326315789 | 0.326315789 |
| Q3UJU9     | Rmdn3 Fam82a2 Fa    | Regulator of microtubule dynamics pro    | 1.6429561  | 0.658287 | 2.49581  | 6  | 0.046793 | 0.5         | 0.3         |
| A2A8U2     | Tmem201 D4Ertd42    | Transmembrane protein 201 (Spindle-      | -0.4030661 | 0.445421 | -0.90491 | 4  | 0.416689 | 0.4         | 0           |
| A2A8Z1     | Osbpl9 Orp9         | Oxysterol-binding protein-related prot   | -0.1269825 | 0.356829 | -0.35586 | 7  | 0.732426 | 0.575       | 0.475       |
| A2A935-3   | Prdm16 Kiaa1675 N   | Histone-lysine N-methyltransferase PR    | -0.1033718 | 0.465079 | -0.22227 | 8  | 0.829675 | 0.5         | 0.5         |
| A2A9A2     | Dmrta2 Dmrt5        | Doublesex- and mab-3-related transcri    | -0.1683554 | 0.187526 | -0.89777 | 8  | 0.395523 | 0.35        | 0.35        |
| A2AAY5     | Sh3pxd2b Fad49 Tk   | SH3 and PX domain-containing protein     | -0.0800053 | 0.184524 | -0.43358 | 8  | 0.67605  | 0.2875      | 0.2875      |
| A2ABV5     | Med14 Crsp2 Gm64    | Mediator of RNA polymerase II transcrip  | -0.3168674 | 0.496269 | -0.6385  | 6  | 0.546732 | 0.566666667 | 0.366666667 |
| A2AD03     | Chm                 | Rab proteins geranylgeranyltransferase   | -0.0531014 | 0.335035 | -0.1585  | 4  | 0.881747 | 0.6         | 0.2         |
| A2ADB1     | Spen                | Spen family transcription repressor      | -0.1915696 | 0.189995 | -1.00829 | 8  | 0.342837 | 0.515384615 | 0.515384615 |
| A2ADH1     | Magt1               | Magnesium transporter protein 1 (Doli    | -0.5458884 | 0.245608 | -2.2226  | 5  | 0.076877 | 0.3         | 0           |
| A2ADY9     | Ddi2                | Protein DDI1 homolog 2 (EC 3.4.23.-)     | 0.4393765  | 0.234199 | 1.87608  | 8  | 0.097491 | 0.411111111 | 0.411111111 |
| A2AF47     | Dock11 Ziz2         | Dedicator of cytokinesis protein 11 (A   | 0.3285321  | 0.601473 | 0.54621  | 7  | 0.601886 | 0.533333333 | 0.433333333 |
| A2AFF6     | Stag2               | Cohesin subunit SA (SCC3 homolog)        | -0.3048444 | 0.38835  | -0.78497 | 8  | 0.455084 | 0.509090909 | 0.509090909 |
| A2AFG7     | L1cam               | L1 cell adhesion molecule                | -0.0106574 | 0.404847 | -0.02632 | 7  | 0.979733 | 0.5375      | 0.4375      |

|        |         |          |                                          |                                          |           |          |          |          |             |             |      |
|--------|---------|----------|------------------------------------------|------------------------------------------|-----------|----------|----------|----------|-------------|-------------|------|
| A2AGH6 | Med12   | Kiaa0192 | Mediator of RNA polymerase II transcrip  | -0.7946469                               | 0.405926  | -1.95762 | 3        | 0.14519  | 0.6         | 0.1         |      |
| A2AHC3 | Camsap1 |          | Calmodulin-regulated spectrin-associa    | 0.1459067                                | 0.254494  | 0.57332  | 8        | 0.582181 | 0.463636364 | 0.463636364 |      |
| A2AIV2 | Virma   | Kiaa1429 | Protein virilizer homolog                | 0.0487884                                | 0.247897  | 0.19681  | 7        | 0.849569 | 0.625       | 0.525       |      |
| P47879 | Igfbp4  | Igfbp-4  | Insulin-like growth factor-binding prot  | 1.5566811                                | 0.149967  | 10.3801  | 8        | 6.42E-06 | 0.433333333 | 0.433333333 |      |
| A2AJI0 | Map7d1  | Kiaa1187 | MAP7 domain-containing protein 1         | 0.4579075                                | 0.262072  | 1.74726  | 8        | 0.118727 | 0.394736842 | 0.394736842 |      |
| Q8C5W3 | Tbcel   | Lrrc35   | Tubulin-specific chaperone cofactor E-   | 1.5342147                                | 0.465617  | 3.29501  | 3        | 0.045905 | 0.5         | 0           |      |
| A2AJR8 | Tceal8  |          | Transcription elongation factor A (SII)- | -0.315502                                | 0.798307  | -0.39521 | 1        | 0.760393 | 0.7         | 0           |      |
| A2ALU4 | Shroom2 | Apxl     | Protein Shroom2 (Protein Apxl)           | 0.3011911                                | 0.454756  | 0.66231  | 3        | 0.555105 | 0.5         | 0           |      |
| A2AM29 | Mltt3   | Af9      | Protein AF-9 (Myeloid/lymphoid or mix    | 0.529438                                 | 0.465873  | 1.13644  | 8        | 0.288665 | 0.525       | 0.525       |      |
| A2AN08 | Ubr4    | Kiaa0462 | E3 ubiquitin-protein ligase UBR4 (EC 2   | -0.1914703                               | 0.262601  | -0.72913 | 8        | 0.486717 | 0.517391304 | 0.517391304 |      |
| A2ANY6 | Mdn1    |          | Midasin                                  | -0.3049817                               | 0.249171  | -1.22398 | 7        | 0.260552 | 0.675       | 0.575       |      |
| A2APB8 | Tpx2    |          | Targeting protein for Xklp2              | 0.1855416                                | 0.277913  | 0.66762  | 8        | 0.523162 | 0.476       | 0.476       |      |
| A2APV2 | Fmn12   | Kiaa1902 | Formin-like protein 2 (Protein Man)      | 0.4018257                                | 0.534579  | 0.75167  | 4        | 0.49406  | 0.575       | 0.175       |      |
| A2AQ07 | Tubb1   |          | Tubulin beta-1 chain                     | -1.3261158                               | 1.277031  | -1.03844 | 5        | 0.346653 | 0.666666667 | 0.366666667 |      |
| A2AQ19 | Rtf1    |          | RNA polymerase-associated protein RT     | 0.3417143                                | 0.338757  | 1.00873  | 8        | 0.342637 | 0.45625     | 0.45625     |      |
| A2AQ25 | Skt     | Etl4     | Kiaa1217                                 | Sickle tail protein (Enhancer trap locus | -0.096349 | 0.384292 | -0.25072 | 8        | 0.808351    | 0.38        | 0.38 |
| A2AR02 | Ppig    |          | Peptidyl-prolyl cis-trans isomerase G (I | 0.2787225                                | 0.206913  | 1.34705  | 8        | 0.214873 | 0.4         | 0.4         |      |
| A2AT37 | Upf2    | RENT2    | Regulator of nonsense transcripts 2 (U   | -0.0749457                               | 0.220621  | -0.3397  | 8        | 0.742827 | 0.575       | 0.575       |      |
| A2AUM9 | Cep152  | Kiaa0912 | Centrosomal protein of 152 kDa (Cep: Inf |                                          | NA        | NA       | NA       | NA       | NA          | NA          |      |
| A2AUY4 | Baz2b   |          | Bromodomain adjacent to zinc finger c    | -0.7537449                               | 1.008195  | -0.74762 | 4        | 0.496246 | 0.55        | 0.15        |      |
| A2AWA9 | Rabgap1 | Kiaa4104 | Rab GTPase-activating protein 1 (GAP ;   | -0.0628142                               | 0.226777  | -0.27699 | 8        | 0.788813 | 0.461538462 | 0.461538462 |      |
| A2AWL7 | Mga     | Kiaa4252 | MAX gene-associated protein              | -0.576951                                | 0.300267  | -1.92146 | 6        | 0.103057 | 0.45        | 0.25        |      |
| A2BDX3 | Mocs3   | Uba4     | Adenylyltransferase and sulfurtransfer   | 0.0341396                                | 0.296219  | 0.11525  | 8        | 0.911086 | 0.4         | 0.4         |      |
| A2BE28 | Las1l   |          | Ribosomal biogenesis protein LAS1L (E    | -0.0644642                               | 0.230751  | -0.27937 | 8        | 0.78705  | 0.371428571 | 0.371428571 |      |
| A2BI12 | Psip1   |          | PC4 and SFRS1-interacting protein (Le    | -0.2477954                               | 0.262774  | -0.943   | 8        | 0.373285 | 0.25        | 0.25        |      |
| A2CG63 | Arid4b  | Sap180   | AT-rich interactive domain-containing I  | -0.045469                                | 0.17345   | -0.26214 | 8        | 0.799834 | 0.5         | 0.5         |      |
| A2RSY6 | Trmt1l  |          | TRMT1-like protein (EC 2.1.1.-)          | -0.189617                                | 0.268336  | -0.70664 | 7        | 0.502627 | 0.566666667 | 0.466666667 |      |
| A2RTH5 | Lcmt1   |          | Leucine carboxyl methyltransferase 1 (   | 0.1933837                                | 0.2976    | 0.64981  | 8        | 0.534024 | 0.55        | 0.55        |      |
| A3E4B0 | COX2    | COXII    | Cytochrome c oxidase subunit 2           | 0.8128049                                | 0.48691   | 1.66931  | 8        | 0.133607 | 0.35        | 0.35        |      |
| A3KGI2 | Rad51   |          | RAD51 recombinase                        | -0.0574023                               | 0.183601  | -0.31265 | 6        | 0.765131 | 0.35        | 0.15        |      |
| A3KGU5 | Sptan1  | Spna2    | Spectrin alpha, non-erythrocytic 1       | 0.0994282                                | 0.215365  | 0.46167  | 8        | 0.65661  | 0.1         | 0.1         |      |
| A3KGV1 | Odf2    | Odf84    | Outer dense fiber protein 2 (84 kDa ou   | -0.7016586                               | 0.314767  | -2.22913 | 2        | 0.155597 | 0.6         | 0           |      |
| A5A4Z2 | Ppp1r11 |          | E3 ubiquitin-protein ligase PPP1R11 (I   | 0.1112244                                | 0.296746  | 0.37481  | 8        | 0.71754  | 0.2         | 0.2         |      |
| A6BLY7 | Krt28   | Krt25d   | Keratin, type I cytoskeletal 28 (Cytoker | 2.2646294                                | 0.872843  | 2.59454  | 3        | 0.080756 | 0.5         | 0           |      |
| A6H5Y3 | Mtr     |          | Methionine synthase (MS) (EC 2.1.1.13    | 0.491607                                 | 0.514882  | 0.95479  | 8        | 0.367638 | 0.375       | 0.375       |      |
| A6H630 | Armt1   |          | Damage-control phosphatase ARMT1 (       | 0.6179277                                | 0.512827  | 1.20494  | 5        | 0.282139 | 0.55        | 0.25        |      |
| A6PWW4 | Wdr76   |          | WD repeat-containing protein 76          | 0.1184367                                | 0.264757  | 0.44734  | 3        | 0.684956 | 0.5         | 0           |      |
| A7YY80 | Epb41l3 | Epb4.1l3 | 130kDa Protein 4.1B MEF cell isoform     | -0.3108216                               | 0.214009  | -1.45238 | 8        | 0.184462 | 0.386956522 | 0.386956522 |      |

|        |                     |                                          |            |          |          |    |          |             |             |
|--------|---------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| A8DUN2 | Hbbt1               | Beta-globin                              | 0.4022524  | 0.573553 | 0.70133  | 8  | 0.502982 | 0.433333333 | 0.433333333 |
| A8DUV1 | Hbat1               | Alpha-globin                             | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| A8Y5E9 | Zbtb8os             | Protein archease                         | 0.3437188  | 0.262704 | 1.30839  | 1  | 0.415452 | 0.7         | 0           |
| B0LAA9 | Pgk1                | Phosphoglycerate kinase (EC 2.7.2.3)     | 0.2249115  | 0.273562 | 0.82216  | 8  | 0.434805 | 0.3         | 0.3         |
| B0V2N1 | Ptpsr               | Receptor-type tyrosine-protein phospl    | -0.053473  | 0.290745 | -0.18392 | 8  | 0.858655 | 0.466666667 | 0.466666667 |
| B0V2P5 | Dmxl2               | Dmx-like 2                               | 1.8812204  | 0.453863 | 4.14491  | 2  | 0.053572 | 0.6         | 0           |
| B1AQX9 | Srcin1              | SRC kinase signaling inhibitor 1         | 0.3968245  | 0.203033 | 1.95449  | 7  | 0.09156  | 0.3         | 0.2         |
| B1AQZ0 | Septin8 Sept8       | Septin-8                                 | 0.1128478  | 0.305684 | 0.36916  | 7  | 0.722919 | 0.58        | 0.48        |
| B1AR17 | Chd3                | DNA helicase (EC 3.6.4.12)               | 0.2382026  | 0.207876 | 1.14589  | 8  | 0.284959 | 0.5         | 0.5         |
| B1ASA5 | Zfp362 RP23-467J2   | Zinc finger protein 362                  | 0.0289087  | 0.548041 | 0.05275  | 1  | 0.96645  | 0.7         | 0           |
| B1ASU9 | Tlk2                | Tousled-like kinase 2 (Arabidopsis)      | -0.1378228 | 0.431007 | -0.31977 | 8  | 0.757334 | 0.533333333 | 0.533333333 |
| B1AU75 | Nasp                | Nuclear autoantigenic sperm protein      | 0.1808318  | 0.138703 | 1.30373  | 8  | 0.228589 | 0.17        | 0.17        |
| B1AVZ0 | Uprt                | Uracil phosphoribosyltransferase hom     | 0.1151898  | 0.441902 | 0.26067  | 5  | 0.804744 | 0.65        | 0.35        |
| B1AWE0 | Clta                | Clathrin light chain                     | 0.2239426  | 0.210645 | 1.06313  | 8  | 0.318758 | 0.1         | 0.1         |
| B1AWL2 | Znf462 Zfp462       | Zinc finger protein 462 (Zinc finger PB) | -0.1075649 | 0.233045 | -0.46156 | 8  | 0.656686 | 0.471794872 | 0.471794872 |
| B1AXD8 | Akirin2             | Akirin-2                                 | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| B1AY13 | Usp24               | Ubiquitin carboxyl-terminal hydrolase    | 0.7301106  | 0.90372  | 0.80789  | 3  | 0.47827  | 0.6         | 0.1         |
| B1AZ42 | Chmp6               | Charged multivesicular body protein 6    | 0.2207923  | 0.227084 | 0.97229  | 4  | 0.385962 | 0.633333333 | 0.233333333 |
| B1AZI6 | Thoc2               | THO complex subunit 2 (Tho2)             | 0.2440979  | 0.231236 | 1.05562  | 8  | 0.321974 | 0.464285714 | 0.464285714 |
| B1AZP2 | Dlgap4 Kiaa0964 Sa  | Disks large-associated protein 4 (DAP-   | 0.1446119  | 0.465734 | 0.3105   | 8  | 0.764114 | 0.427272727 | 0.427272727 |
| B2KFM9 | Sox5                | SRY (sex determining region Y)-box 5     | 0.1675303  | 0.240005 | 0.69803  | 8  | 0.504939 | 0.518181818 | 0.518181818 |
| B2LVG5 | Cpsf4               | Cleavage and polyadenylation specifi     | 0.0917598  | 0.217553 | 0.42178  | 8  | 0.68429  | 0.371428571 | 0.371428571 |
| B2M1R6 | Hnrnpk Hnrpk        | Heterogeneous nuclear ribonucleopro      | 0.1600086  | 0.251559 | 0.63607  | 8  | 0.542497 | 0           | 0           |
| B2M1R7 | Pcbp2               | Poly(RC) binding protein 2               | 0.6058379  | 0.745471 | 0.81269  | 7  | 0.443153 | 0.1         | 0           |
| B2RQ13 | Pald1 X99384        | Paladin                                  | 0.0737034  | 0.249025 | 0.29597  | 8  | 0.774792 | 0.56        | 0.56        |
| B2RQC2 | Usp42               | Ubiquitin carboxyl-terminal hydrolase    | -0.7167834 | 0.861746 | -0.83178 | 2  | 0.49303  | 0.6         | 0           |
| B2RQC6 | Cad                 | Multifunctional protein CAD (Carbamc     | -0.2410211 | 0.173503 | -1.38914 | 8  | 0.202233 | 0.311111111 | 0.311111111 |
| B2RQG2 | Phf3                | PHD finger protein 3                     | -0.2059199 | 0.368641 | -0.55859 | 8  | 0.591727 | 0.466666667 | 0.466666667 |
| B2RQS1 | Strn3               | Striatin, calmodulin binding protein 3   | 0.0643477  | 0.133104 | 0.48344  | 8  | 0.641737 | 0.175       | 0.175       |
| B2RR83 | Ythdc2              | 3'-5' RNA helicase YTHDC2 (EC 3.6.4.1    | -0.2604125 | 0.765145 | -0.34034 | 2  | 0.766021 | 0.6         | 0           |
| B2RRE7 | Otu4 Kiaa1046       | OTU domain-containing protein 4 (EC      | -0.2642831 | 0.29948  | -0.88247 | 8  | 0.403257 | 0.444444444 | 0.444444444 |
| B2RRM5 | Tmed1               | Transmembrane emp24 domain-conta         | -0.0932778 | 0.293296 | -0.31803 | 8  | 0.758603 | 0.5         | 0.5         |
| B2RUF0 | Ybx2                | Y box protein 2                          | -0.2831086 | 0.142987 | -1.97996 | 3  | 0.142063 | 0.6         | 0.1         |
| B2RUJ8 | Arhgap12            | Rho GTPase activating protein 12         | -0.1361496 | 0.265218 | -0.51335 | 8  | 0.621579 | 0.566666667 | 0.566666667 |
| Q99KW3 | Triobp Kiaa1662 Tar | TRIO and F-actin-binding protein (Prot   | 1.5175308  | 0.619481 | 2.44968  | 8  | 0.039957 | 0.533333333 | 0.533333333 |
| B2RWS6 | Ep300 P300          | Histone acetyltransferase p300 (p300     | -0.2996264 | 0.46535  | -0.64387 | 7  | 0.540172 | 0.5         | 0.4         |
| B2RWW2 | Golgb1              | Golgb1 protein                           | -0.3277988 | 0.641121 | -0.51129 | 5  | 0.630919 | 0.55        | 0.25        |
| B2RX14 | Tut4 Kiaa0191 Zcch  | Terminal uridylyltransferase 4 (TUTase   | 0.6876508  | 0.578449 | 1.18878  | 7  | 0.273285 | 0.55        | 0.45        |

|          |                   |                                         |            |          |          |   |          |             |             |
|----------|-------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| B2RXS4   | Plxnb2            | Plexin-B2                               | -0.0638799 | 0.180098 | -0.3547  | 8 | 0.731986 | 0.388636364 | 0.388636364 |
| B2RXT3   | Ogdhl             | oxoglutarate dehydrogenase (succinyl-   | 0.2246352  | 0.140706 | 1.59648  | 8 | 0.149047 | 0.366666667 | 0.366666667 |
| B2RXW8   | Ppfia1            | Ppfia1 protein (Protein tyrosine phosph | 0.7284615  | 0.370579 | 1.96574  | 8 | 0.084901 | 0.46        | 0.46        |
| B2RY56   | Rbm25             | RNA-binding protein 25 (RNA-binding     | 0.0087251  | 0.119139 | 0.07323  | 8 | 0.943417 | 0.2375      | 0.2375      |
| B3V097   | Cstf2             | BetaCstF-64 variant 3                   | -0.223903  | 0.067836 | -3.30063 | 1 | 0.187282 | 0.7         | 0           |
| B7ZCR6   | Zfp512b           | Zinc finger protein 512B                | -0.4581052 | 0.289873 | -1.58036 | 5 | 0.174862 | 0.55        | 0.25        |
| B7ZJH9   | Sigmar1 Oprs1     | Sigma non-opioid intracellular recepto  | -0.9948711 | 0.776983 | -1.28043 | 4 | 0.269602 | 0.4         | 0           |
| B7ZNG0   | Kif7              | Kinesin-like protein KIF7               | -0.4293568 | 0.265824 | -1.61519 | 4 | 0.181571 | 0.6         | 0.2         |
| B7ZNR8   | Map4k4            | non-specific serine/threonine protein I | -0.3001896 | 0.150142 | -1.99937 | 7 | 0.085699 | 0.566666667 | 0.466666667 |
| B7ZNY0   | Pde4dip           | Pde4dip protein                         | -0.3865964 | 0.215935 | -1.79034 | 7 | 0.11652  | 0.6         | 0.5         |
| B7ZNY4   | Erbin Erbb2ip     | Erbb2ip protein                         | 0.0513212  | 0.287353 | 0.1786   | 8 | 0.862692 | 0.475       | 0.475       |
| B7ZW2    | Sarnp 1110005A23  | 1110005A23Rik protein                   | 0.3494505  | 0.467621 | 0.74729  | 1 | 0.591438 | 0.7         | 0           |
| B9EHJ3   | Tjp1              | Tight junction protein 1 (Tjp1 protein) | -0.0841352 | 0.201809 | -0.4169  | 8 | 0.68771  | 0.370689655 | 0.370689655 |
| B9EHM1   | Zc3hav1l          | Zinc finger CCCH-type, antiviral 1-like | 0.7849112  | 0.428305 | 1.8326   | 7 | 0.109527 | 0.6         | 0.5         |
| B9EHT4   | Clip3 Clipr59     | CAP-Gly domain-containing linker prot   | -0.1512655 | 0.169446 | -0.89271 | 2 | 0.466213 | 0.6         | 0           |
| B9EJ54   | Nup205            | Nucleoporin 205 (Nup205 protein)        | -0.4810669 | 0.374289 | -1.28528 | 8 | 0.234652 | 0.468181818 | 0.468181818 |
| B9EJ86   | Osbp18 Kiaa1451 O | Oxysterol-binding protein-related prot  | 0.2438035  | 0.150748 | 1.61729  | 6 | 0.156943 | 0.2         | 0           |
| B9EJA2   | Cttnbp2 Kiaa1758  | Cortactin-binding protein 2 (CortBP2)   | -0.8019845 | 0.415727 | -1.92911 | 1 | 0.304455 | 0.7         | 0           |
| B9EJR8   | Dnaaf5 Heatr2     | Dynein axonemal assembly factor 5 (H    | 0.653036   | 0.863785 | 0.75602  | 3 | 0.504586 | 0.5         | 0           |
| B9EKI3   | Tmf1 Ara160 Gm15  | TATA element modulatory factor (TMF)    | -0.462662  | 0.567191 | -0.81571 | 3 | 0.47441  | 0.65        | 0.15        |
| B9EKR1   | Ptporz1           | Receptor-type tyrosine-protein phosph   | 0.7542256  | 0.43134  | 1.74857  | 8 | 0.118491 | 0.463636364 | 0.463636364 |
| C0HK80   | Arxes2            | Adipocyte-related X-chromosome expr     | -0.4156078 | 0.385513 | -1.07807 | 6 | 0.322427 | 0.5         | 0.3         |
| C0HKD9   | Mfap1b            | Microfibrillar-associated protein 1B (S | 0.4459118  | 0.322643 | 1.38206  | 8 | 0.204315 | 0.309090909 | 0.309090909 |
| C9K0Z6   | Cntfr cntfr       | Ciliary neurotrophic factor receptor su | -0.2145224 | 0.254056 | -0.84439 | 8 | 0.422981 | 0.373333333 | 0.373333333 |
| Q8K1A5   | Tmem41b D7Ert74   | Transmembrane protein 41B (Protein s    | 1.4800758  | 0.525652 | 2.81569  | 5 | 0.037297 | 0.5         | 0.2         |
| D3YTR3   | Mex3d             | Mex3 RNA binding family member D        | 0.104414   | 0.157617 | 0.66245  | 6 | 0.532287 | 0.525       | 0.325       |
| D3YUB6-3 | Btbd8 Gm16115 Ki  | BTB/POZ domain-containing protein 8     | -0.231039  | 0.194657 | -1.1869  | 2 | 0.357137 | 0.6         | 0           |
| D3YVF0   | Akap5 Akap150     | A-kinase anchor protein 5 (AKAP-5) (A   | 0.1579651  | 0.322074 | 0.49046  | 8 | 0.636975 | 0.55        | 0.55        |
| D3YVZ9   | Mrps21            | Mitochondrial ribosomal protein S21     | -0.3191022 | 0.542924 | -0.58775 | 3 | 0.598013 | 0.5         | 0           |
| D3YW19   | Vps35l 9030624J02 | VPS35 endosomal protein-sorting fact    | 0.2543744  | 0.184712 | 1.37714  | 2 | 0.302346 | 0.6         | 0           |
| D3YWS8   | Leng8             | Leukocyte receptor cluster (LRC) meml   | 0.0867506  | 0.208236 | 0.4166   | 4 | 0.698358 | 0.65        | 0.25        |
| D3YWX2   | Ylpm1             | YLP motif containing 1                  | 0.1835073  | 0.153397 | 1.19629  | 8 | 0.265831 | 0.408695652 | 0.408695652 |
| D3YXK1   | Samd1             | Sterile alpha motif domain-containing   | 0.0899488  | 0.299898 | 0.29993  | 5 | 0.776298 | 0.7         | 0.4         |
| D3YXK2   | Safb Safb1        | Scaffold attachment factor B1 (SAF-B1   | 0.167526   | 0.142435 | 1.17616  | 8 | 0.273342 | 0.19        | 0.19        |
| D3YXM1   | Stk16             | non-specific serine/threonine protein I | -0.0411865 | 0.426366 | -0.0966  | 6 | 0.926191 | 0.2         | 0           |
| D3YYT1   | Glyr1             | Cytokine-like nuclear factor N-PAC (Gl  | 0.115864   | 0.125075 | 0.92636  | 8 | 0.381356 | 0.292307692 | 0.292307692 |
| D3YYU8   | Obsl1             | Obscurin-like protein 1                 | -0.2528403 | 0.358966 | -0.70436 | 8 | 0.501196 | 0.56        | 0.56        |
| D3YZ20   | Polr2j            | Polymerase (RNA) II (DNA directed) po   | 0.0669758  | 0.189541 | 0.35336  | 8 | 0.732951 | 0.314285714 | 0.314285714 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| D3YZ62   | Myo5a              | Myosin VA                                | -0.1589015 | 0.278826 | -0.56989 | 8 | 0.584394 | 0.52        | 0.52        |
| D3YZC9   | Sf1                | Splicing factor 1                        | 0.1369014  | 0.166174 | 0.82384  | 8 | 0.433901 | 0.162068966 | 0.162068966 |
| D3YZG8   | Mthfd2l            | Bifunctional methylenetetrahydrofolat    | 0.2298992  | 0.369718 | 0.62182  | 4 | 0.567745 | 0.7         | 0.3         |
| D3YZP9   | Ccdc6              | Coiled-coil domain-containing protein    | -0.2904981 | 0.367315 | -0.79087 | 8 | 0.451827 | 0.466666667 | 0.466666667 |
| D3YZV8   | Ccdc8              | Coiled-coil domain-containing protein    | 0.174448   | 0.224153 | 0.77826  | 7 | 0.461909 | 0.35        | 0.25        |
| D3YZZ5   | Tmed7              | Transmembrane p24 trafficking proteir    | -0.2622821 | 0.211546 | -1.23984 | 8 | 0.250169 | 0.22        | 0.22        |
| D3Z0M9   | Ddx23              | RNA helicase (EC 3.6.4.13)               | 0.1625133  | 0.307955 | 0.52772  | 8 | 0.612014 | 0.422580645 | 0.422580645 |
| D3Z0V7   | Tsc22d1            | TSC22 domain family protein 1            | -0.0653551 | 0.267394 | -0.24442 | 8 | 0.813061 | 0.55        | 0.55        |
| D3Z2R5   | Selenon Seln Sepn1 | Selenoprotein N (SeIN)                   | 0.9160521  | 0.659507 | 1.389    | 8 | 0.202276 | 0.475       | 0.475       |
| D3Z383   | Mest               | Mesoderm specific transcript             | 0.2471518  | 0.288799 | 0.85579  | 8 | 0.417006 | 0.47        | 0.47        |
| Q08639   | Tfdp1              | Transcription factor Dp-1 (DRTF1-poly    | 1.456007   | 0.313942 | 4.63782  | 3 | 0.01889  | 0.5         | 0           |
| D3Z4S3   | Pthrhd1            | Putative peptidyl-tRNA hydrolase PTRH    | -0.2578937 | 0.127091 | -2.02921 | 2 | 0.179586 | 0.65        | 0.05        |
| D3Z4T1   | Celf5              | CUGBP, Elav-like family member 5         | 0.0558965  | 0.370643 | 0.15081  | 3 | 0.889696 | 0.6         | 0.1         |
| D3Z6G3   | Mapre3             | Microtubule-associated protein, RP/EB    | 0.3530207  | 0.21387  | 1.65064  | 7 | 0.142798 | 0.1         | 0           |
| D3Z6H3   | Dctn6              | Dynactin subunit 6                       | 0.6315225  | 0.536241 | 1.17768  | 8 | 0.272767 | 0.4         | 0.4         |
| D3Z723   | Nfyb               | Nuclear transcription factor Y subunit   | 0.0708998  | 0.539978 | 0.1313   | 8 | 0.898779 | 0.233333333 | 0.233333333 |
| D3Z7P3-2 | Gls Glsl Kiaa0838  | Glutaminase kidney isoform, mitochon     | -0.1362569 | 0.239016 | -0.57007 | 7 | 0.58645  | 0.1         | 0           |
| Q9D289   | Trappc6b           | Trafficking protein particle complex sul | 1.4401452  | 0.402213 | 3.58055  | 4 | 0.023156 | 0.7         | 0.3         |
| D4QGC2   | Maml3 Mam-2        | Mastermind like transcriptional coactiv  | -0.3943773 | 1.046219 | -0.37695 | 2 | 0.742445 | 0.6         | 0           |
| D5MCW4   | Cuta               | CutA divalent cation tolerance homolo    | 0.879085   | 0.412371 | 2.13178  | 8 | 0.065611 | 0.32        | 0.32        |
| D6RFC4   | Psmc3ip            | Proteasome (prosome, macropain) 26S      | -0.0259716 | 0.179622 | -0.14459 | 2 | 0.898289 | 0.6         | 0           |
| E0CX61   | Sgtb               | Small glutamine-rich tetratricopeptide   | 0.702631   | 0.478359 | 1.46884  | 6 | 0.192263 | 0.533333333 | 0.333333333 |
| E0CXE7   | Ctc1 1500010J02R   | CST complex subunit CTC1                 | 0.0990578  | 0.381174 | 0.25988  | 6 | 0.803647 | 0.5         | 0.3         |
| E1U8D0   | Mtcl2 Soga Soga1   | Microtubule cross-linking factor 2 (SOI  | 0.5669709  | 0.509762 | 1.11223  | 8 | 0.298344 | 0.533333333 | 0.533333333 |
| E9PUF4   | Rbm26              | RNA binding motif protein 26             | -0.4170787 | 0.351818 | -1.1855  | 5 | 0.289087 | 0.3         | 0           |
| E9PUK3   | Fnbp1l             | Formin-binding protein 1-like (Transdu   | 0.2990284  | 0.185923 | 1.60835  | 8 | 0.146426 | 0.379411765 | 0.379411765 |
| E9PUP9   | Epha5              | receptor protein-tyrosine kinase (EC 2   | -0.6951776 | 0.378274 | -1.83776 | 8 | 0.1034   | 0.42        | 0.42        |
| E9PUR0   | Ankhd1             | Ankyrin repeat and KH domain contain     | -0.2383012 | 0.633355 | -0.37625 | 7 | 0.717874 | 0.6125      | 0.5125      |
| E9PV14   | Epb41l1 Epb4.1l1   | Erythrocyte membrane protein band 4      | 0.8508106  | 0.400148 | 2.12624  | 8 | 0.066179 | 0.6125      | 0.6125      |
| E9PV24   | Fga                | Fibrinogen alpha chain [Cleaved into: F  | 0.4726985  | 0.354329 | 1.33407  | 8 | 0.218909 | 0.4         | 0.4         |
| E9PV41   | Diaph1             | Diaphanous related formin 1              | 0.2802452  | 0.3892   | 0.72005  | 8 | 0.49199  | 0.533333333 | 0.533333333 |
| E9PV44   | Atp5if1            | ATPase inhibitor, mitochondrial (ATP s   | 0.0534113  | 0.764612 | 0.06985  | 8 | 0.946024 | 0.32        | 0.32        |
| E9PVA8   | Gcn1 Gcn1l1        | Stalled ribosome sensor GCN1 (GCN1       | -0.1203401 | 0.246626 | -0.48795 | 8 | 0.63868  | 0.388157895 | 0.388157895 |
| E9PVC5   | Eif4g1             | Eukaryotic translation initiation factor | -0.0758929 | 0.187775 | -0.40417 | 8 | 0.696678 | 0.294230769 | 0.294230769 |
| E9PVD3   | Dchs1              | Protocadherin-16 (Protein Dchs1) (Pr     | 0.3661986  | 0.162328 | 2.25592  | 8 | 0.054066 | 0.455555556 | 0.455555556 |
| E9PVU0   | Myo6               | Unconventional myosin-VI (Unconven       | 0.1314005  | 0.560875 | 0.23428  | 3 | 0.829848 | 0.5         | 0           |
| E9PVX6   | Mki67              | Proliferation marker protein Ki-67 (Ant  | 0.1902706  | 0.424775 | 0.44793  | 8 | 0.666084 | 0.446666667 | 0.446666667 |
| E9PW37   | Rasal2             | RAS protein activator like 2             | -0.1505795 | 0.268622 | -0.56056 | 6 | 0.595392 | 0.35        | 0.15        |

|        |                  |                                          |            |          |          |    |          |             |             |
|--------|------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| E9PWE2 | Tcf3             | Transcription factor E2-alpha (Transcri  | 0.1098639  | 0.208384 | 0.52722  | 3  | 0.634544 | 0.65        | 0.15        |
| E9PWE8 | Dpysl3           | Dihydropyrimidinase-like 3               | 0.2539773  | 0.135035 | 1.88083  | 8  | 0.096782 | 0.169230769 | 0.169230769 |
| E9PWG6 | Ncapg            | Non-SMC condensin I complex, subun       | -0.2213252 | 0.21058  | -1.05103 | 8  | 0.323956 | 0.286363636 | 0.286363636 |
| E9PWM3 | Armxc4           | Armadillo repeat containing, X-linked 4  | 0.4586645  | 0.396607 | 1.15647  | 8  | 0.280854 | 0.557142857 | 0.557142857 |
| E9PWQ3 | Col6a3           | Collagen, type VI, alpha 3               | 0.4023143  | 0.529354 | 0.76001  | 5  | 0.481527 | 0.3         | 0           |
| E9PWS2 | Serpinf1         | Serine (or cysteine) peptidase inhibitor | 0.5695264  | 0.462077 | 1.23253  | 2  | 0.342977 | 0.6         | 0           |
| E9PWW9 | Rsf1             | Remodeling and spacing factor 1          | -0.1489857 | 0.311156 | -0.47881 | 8  | 0.644885 | 0.25        | 0.25        |
| E9PX68 | Slc4a1ap         | Solute carrier family 4 (anion exchange  | -0.1682058 | 0.328832 | -0.51153 | 8  | 0.622799 | 0.453846154 | 0.453846154 |
| Q69ZW3 | Ehbp1 Kiaa0903   | EH domain-binding protein 1              | 1.4174855  | 0.39853  | 3.55678  | 8  | 0.007435 | 0.375       | 0.375       |
| Q9JJC6 | Rilpl1 MNCb-2440 | RILP-like protein 1 (Rab-interacting lys | 1.3919016  | 0.597644 | 2.32898  | 8  | 0.048238 | 0.4         | 0.4         |
| E9PYH6 | Setd1a           | Histone-lysine N-methyltransferase SE    | -0.0691346 | 0.767314 | -0.0901  | 8  | 0.930423 | 0.477777778 | 0.477777778 |
| P70365 | Ncoa1 Src1       | Nuclear receptor coactivator 1 (NCoA-    | 1.3782454  | 0.216294 | 6.37208  | 3  | 0.007824 | 0.7         | 0.2         |
| E9PZ16 | Hspg2            | Perlecan (heparan sulfate proteoglycan   | -0.2141733 | 0.218689 | -0.97935 | 8  | 0.356089 | 0.510526316 | 0.510526316 |
| E9PZ43 | Map4 Mtap4       | Microtubule-associated protein           | 0.2084703  | 0.321215 | 0.649    | 8  | 0.534519 | 0.411111111 | 0.411111111 |
| E9PZF0 | Nme1nme2         | Nucleoside diphosphate kinase (EC 2.     | 0.1873832  | 0.302107 | 0.62026  | 8  | 0.552344 | 0.094117647 | 0.094117647 |
| E9PZI9 | Cd200            | CD200 molecule                           | 0.2658146  | 0.36176  | 0.73478  | 2  | 0.538949 | 0.6         | 0           |
| E9PZM7 | Scaf11           | SR-related CTD-associated factor 11      | 0.1189632  | 0.294871 | 0.40344  | 8  | 0.697191 | 0.486666667 | 0.486666667 |
| E9PZP8 | Herc1            | HECT and RLD domain containing E3 u      | -0.6935605 | 0.409928 | -1.69191 | 6  | 0.141613 | 0.55        | 0.35        |
| E9PZS8 | Cox7a2l          | Cytochrome c oxidase subunit 7A2 lik     | -0.7734583 | 0.640074 | -1.20839 | 2  | 0.350385 | 0.6         | 0           |
| E9PYL2 | Prr12 Kiaa1205   | Proline-rich protein 12                  | 1.3083996  | 0.249914 | 5.2354   | 8  | 0.000788 | 0.55        | 0.55        |
| E9Q0Z7 | Sumf1            | Sulfatase modifying factor 1             | -0.6965069 | 0.192635 | -3.61569 | 1  | 0.171778 | 0.7         | 0           |
| E9Q166 | Atad2b           | ATPase family, AAA domain containing     | -0.0259775 | 0.215999 | -0.12027 | 8  | 0.907238 | 0.471428571 | 0.471428571 |
| E9Q199 | Nabp2 Obfc2b     | Nucleic acid binding protein 2           | 0.6033068  | 0.418435 | 1.44182  | 8  | 0.187331 | 0.34        | 0.34        |
| E9Q1A5 | Zfp384           | Zinc finger protein 384                  | 0.2249646  | 0.248544 | 0.90513  | 4  | 0.416585 | 0.65        | 0.25        |
| E9Q1G8 | Septin7 Sept7    | Septin                                   | 0.3022733  | 0.137858 | 2.19264  | 8  | 0.059675 | 0.271428571 | 0.271428571 |
| E9Q1P8 | Irf2bp2          | Interferon regulatory factor 2-binding   | 0.0205863  | 0.271587 | 0.0758   | 8  | 0.94144  | 0.39        | 0.39        |
| E9Q1U6 | Ctif             | CBP80/20-dependent translation initi     | 0.3121738  | 0.299767 | 1.04139  | 8  | 0.328142 | 0.414285714 | 0.414285714 |
| E9Q1W0 | Camk2d           | calcium/calmodulin-dependent protei      | -0.8417023 | 0.286319 | -2.93974 | 2  | 0.098853 | 0.6         | 0           |
| E9Q2E4 | Hectd4           | HECT domain E3 ubiquitin protein liga    | 0.0539012  | 0.482274 | 0.11176  | 6  | 0.914655 | 0.6         | 0.4         |
| E9Q2H1 | Ubr5             | Ubiquitin protein ligase E3 component    | 0.3729529  | 0.378351 | 0.98573  | 8  | 0.353134 | 0.6         | 0.6         |
| E9Q2S7 | Zfp266           | Zinc finger protein 266                  | 0.0999757  | 0.259593 | 0.38513  | 8  | 0.710182 | 0.333333333 | 0.333333333 |
| E9Q2W9 | Actn4            | Alpha-actinin-4 (Non-muscle alpha-act    | 1.1325219  | 0.984159 | 1.15075  | 7  | 0.287622 | 0.1         | 0           |
| E9Q394 | Akap13 Brx       | A-kinase anchor protein 13 (AKAP-13)     | 0.3023738  | 0.443332 | 0.68205  | 3  | 0.544148 | 0.633333333 | 0.133333333 |
| E9Q3I3 | Spata13          | Spermatogenesis associated 13            | -0.0904438 | 0.552921 | -0.16357 | 7  | 0.874689 | 0.48        | 0.38        |
| E9Q414 | Apob             | Apolipoprotein B-100 (Apo B-100) [Cl     | 0.1729072  | 0.494007 | 0.35001  | 8  | 0.735368 | 0.4375      | 0.4375      |
| E9Q4K7 | Kif13b           | Kinesin family member 13B                | -0.2127201 | 0.333773 | -0.63732 | 4  | 0.558569 | 0.7         | 0.3         |
| E9Q512 | Trip11           | Thyroid hormone receptor interactor 1    | -0.1668619 | 0.460175 | -0.36261 | 8  | 0.726293 | 0.475       | 0.475       |
| E9Q557 | Dsp              | Desmoplakin (DP)                         | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |

|          |                    |                                         |            |          |          |   |          |              |              |
|----------|--------------------|-----------------------------------------|------------|----------|----------|---|----------|--------------|--------------|
| E9Q586   | Dctn1              | Dynactin subunit 1                      | 0.1734007  | 0.208142 | 0.83309  | 8 | 0.428964 | 0.25         | 0.25         |
| E9Q5F9   | Setd2 Kiaa1732 Km  | Histone-lysine N-methyltransferase SE   | 0.0863736  | 0.62615  | 0.13794  | 8 | 0.893693 | 0.5          | 0.5          |
| E9Q5G3   | Kif23              | Kinesin-like protein KIF23              | -0.3753386 | 0.589602 | -0.6366  | 8 | 0.54217  | 0.5333333333 | 0.5333333333 |
| E9Q5J9   | Tpm3               | Tropomyosin 3, gamma                    | 0.4555759  | 0.216587 | 2.10343  | 7 | 0.073498 | 0.1          | 0            |
| E9Q5K9   | Ythdc1 Kiaa1966    | YTH domain-containing protein 1         | 0.1931265  | 0.279368 | 0.6913   | 8 | 0.508938 | 0.26         | 0.26         |
| E9Q616   | Ahnak              | AHNAK nucleoprotein (desmoyokin)        | 0.0651562  | 0.381079 | 0.17098  | 8 | 0.868486 | 0.506666667  | 0.506666667  |
| E9Q624   | Zfp644             | Zinc finger protein 644                 | 0.1827683  | 0.355664 | 0.51388  | 3 | 0.642792 | 0.6          | 0.1          |
| E9Q6B2   | Ccdc85c            | Coiled-coil domain-containing protein   | 0.0230404  | 0.16035  | 0.14369  | 8 | 0.8893   | 0.3625       | 0.3625       |
| E9Q6E2   | Cdk8               | Cyclin-dependent kinase 8 (EC 2.7.11.   | -0.0747714 | 1.008737 | -0.07412 | 4 | 0.944471 | 0.65         | 0.25         |
| E9Q6H8   | Plekha5            | Pleckstrin homology domain containin    | -0.2854748 | 0.362644 | -0.7872  | 3 | 0.488625 | 0.55         | 0.05         |
| E9Q6J5   | Bod1l Kiaa1327     | Biorientation of chromosomes in cell c  | 0.262463   | 0.226858 | 1.15695  | 8 | 0.28067  | 0.4875       | 0.4875       |
| E9Q6R4   | Arid1b             | AT rich interactive domain 1B (SWI-like | -0.2908423 | 0.192874 | -1.50794 | 4 | 0.206059 | 0.55         | 0.15         |
| E9Q784   | Zc3h13             | Zinc finger CCCH domain-containing p    | -0.1274077 | 0.211085 | -0.60359 | 8 | 0.562838 | 0.428571429  | 0.428571429  |
| E9Q7E2   | Arid2 Baf200       | AT-rich interactive domain-containing l | -0.1444793 | 0.477188 | -0.30277 | 8 | 0.769787 | 0.56         | 0.56         |
| E9Q7G0   | Numa1              | Nuclear mitotic apparatus protein 1 (N  | 0.0380232  | 0.113592 | 0.33474  | 8 | 0.746432 | 0.294957983  | 0.294957983  |
| E9Q7M2   | Tsc22d2            | TSC22 domain family protein 2           | 1.4130034  | 1.106801 | 1.27666  | 2 | 0.329916 | 0.7          | 0.1          |
| E9Q7S1   | Zfp106             | Zinc finger protein 106                 | -0.3073875 | 0.291014 | -1.05626 | 6 | 0.331511 | 0.6333333333 | 0.4333333333 |
| E9Q8K8   | Zc3h4              | Zinc finger CCCH-type containing 4      | 0.1868168  | 0.109211 | 1.71061  | 8 | 0.12552  | 0.360869565  | 0.360869565  |
| E9Q8M1   | Zfp358             | Zinc finger protein 358                 | 0.2140202  | 0.217545 | 0.9838   | 8 | 0.354029 | 0.4333333333 | 0.4333333333 |
| E9Q912-2 | Rap1gds1           | Rap1 GTPase-GDP dissociation stimul     | 0.2792181  | 0.323625 | 0.86278  | 8 | 0.413373 | 0.384210526  | 0.384210526  |
| E9Q9B7   | Kidins220          | Kinase D-interacting substrate 220      | 0.1620682  | 0.29903  | 0.54198  | 4 | 0.616613 | 0.7          | 0.3          |
| E9Q9C5   | Atp6v0c            | V-type proton ATPase proteolipid subu   | -0.0407123 | 0.483241 | -0.08425 | 4 | 0.936907 | 0.45         | 0.05         |
| E9Q9D5   | Rab12 Rabl2a       | Rab-like protein 2A                     | 0.5827604  | 0.430802 | 1.35273  | 7 | 0.218205 | 0.5          | 0.4          |
| E9Q9Q2   | R3hdm1             | R3H domain containing 1                 | -0.0658229 | 0.088327 | -0.74522 | 3 | 0.510212 | 0.6          | 0.1          |
| E9Q9U2   | Speer2             | Spermatogenesis associated glutamate    | -0.780602  | 0.804667 | -0.97009 | 1 | 0.509663 | 0.7          | 0            |
| E9QA62   | Lmod3              | Leiomodin-3                             | 0.3570235  | 0.661732 | 0.53953  | 1 | 0.685021 | 0.7          | 0            |
| E9QAE3   | Btaf1              | B-TFIID TATA-box binding protein asso   | -0.174075  | 0.20101  | -0.866   | 8 | 0.411707 | 0.4444444444 | 0.4444444444 |
| E9QAP7   | Taf4 Taf4a         | TATA-box binding protein associated f   | -0.193418  | 0.160545 | -1.20476 | 4 | 0.2947   | 0.5          | 0.1          |
| E9QAAQ7  | Arid1a             | AT rich interactive domain 1A (SWI-like | 0.1003695  | 0.196844 | 0.50989  | 8 | 0.623892 | 0.355357143  | 0.355357143  |
| E9QAT0   | Fmr1               | Fragile X messenger ribonucleoprotein   | -0.0471679 | 0.269899 | -0.17476 | 8 | 0.865609 | 0.354545455  | 0.354545455  |
| E9QAT4-2 | Sec16a Kiaa0310 Sc | Protein transport protein Sec16A (SEC   | -0.2303218 | 0.206683 | -1.11437 | 8 | 0.297477 | 0.504        | 0.504        |
| E9QB01   | Ncam1              | Neural cell adhesion molecule 1         | 0.251789   | 0.37012  | 0.68029  | 7 | 0.518181 | 0.1          | 0            |
| E9QJS0   | Mrps10             | Small ribosomal subunit protein uS10    | -0.3808323 | 0.228625 | -1.66575 | 5 | 0.156643 | 0.3          | 0            |
| E9QJV4   | Prpf39             | Pre-mRNA processing factor 39           | 0.2581854  | 0.340862 | 0.75745  | 8 | 0.4705   | 0.46         | 0.46         |
| E9QLK7   | Trrap              | Transformation/transcription domain-    | -0.3685497 | 0.474841 | -0.77615 | 8 | 0.459987 | 0.571428571  | 0.571428571  |
| E9QM77   | Atxn2              | Ataxin 2                                | 0.2502951  | 0.273085 | 0.91655  | 8 | 0.386175 | 0.377777778  | 0.377777778  |
| E9QME3   | Nsl1               | NSL1, MIS12 kinetochore complex con     | 0.8232635  | 0.509254 | 1.61661  | 8 | 0.144626 | 0.4333333333 | 0.4333333333 |
| E9QME5   | Trim33             | Tripartite motif-containing 33          | 0.0758808  | 0.258892 | 0.2931   | 8 | 0.776906 | 0.414285714  | 0.414285714  |

|        |                    |                                         |            |          |          |   |          |             |             |
|--------|--------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| E9QN31 | Nop2               | NOP2 nucleolar protein                  | 0.2131015  | 0.336772 | 0.63278  | 8 | 0.544538 | 0.347058824 | 0.347058824 |
| E9QNA7 | Sorbs1             | Sorbin and SH3 domain containing 1      | -0.175706  | 0.207239 | -0.84784 | 6 | 0.429045 | 0.475       | 0.275       |
| Q6P1E1 | Zmiz1 Rai17 Zimp10 | Zinc finger MIZ domain-containing prot  | 1.3030666  | 0.457566 | 2.84782  | 8 | 0.021551 | 0.45        | 0.45        |
| E9QPX1 | Col18a1            | Collagen, type XVIII, alpha 1           | -0.1186808 | 0.250639 | -0.47351 | 8 | 0.6485   | 0.4         | 0.4         |
| E9QPY6 | Msh3               | DNA mismatch repair protein             | -0.1092432 | 0.175886 | -0.6211  | 6 | 0.557375 | 0.633333333 | 0.433333333 |
| E9QQ96 | Obscn              | non-specific serine/threonine protein I | -0.8622365 | 0.319988 | -2.69459 | 1 | 0.226229 | 0.7         | 0           |
| F2Z3U3 | Raph1              | Ras association (RalGDS/AF-6) and ple   | 0.076824   | 0.301083 | 0.25516  | 7 | 0.805935 | 0.625       | 0.525       |
| F6R9G0 | Ep400              | E1A binding protein p400                | -0.6196587 | 0.070987 | -8.72916 | 1 | 0.072614 | 0.7         | 0           |
| F6U6X3 | Dyrk1a             | Dual specificity tyrosine-phosphorylat  | 0.2303042  | 0.20088  | 1.14647  | 5 | 0.303485 | 0.55        | 0.25        |
| F6Y616 | Paip1              | Polyadenylate binding protein-interact  | -0.0296192 | 0.106578 | -0.27791 | 8 | 0.788128 | 0.209090909 | 0.209090909 |
| F6YX19 | Pigx               | Phosphatidylinositol-glycan biosynthe   | -0.0006595 | 0.186604 | -0.00353 | 2 | 0.997501 | 0.6         | 0           |
| F6Z9H5 | Lhx2               | LIM homeobox protein 2                  | 0.0295235  | 0.478687 | 0.06168  | 7 | 0.952545 | 0.56        | 0.46        |
| F6ZBR8 | Wiz                | Widely-interspaced zinc finger motifs   | 0.0393825  | 0.330722 | 0.11908  | 8 | 0.908148 | 0.15        | 0.15        |
| F6ZFU0 | Eef1d              | Elongation factor 1-delta               | -0.0282406 | 0.158925 | -0.1777  | 8 | 0.863377 | 0.25        | 0.25        |
| F7ACR9 | Macf1              | Microtubule-actin crosslinking factor 1 | -0.437922  | 0.284513 | -1.5392  | 8 | 0.162319 | 0.3         | 0.3         |
| F7BGR7 | Gm21992            | Predicted gene 21992                    | 0.1133661  | 0.157269 | 0.72084  | 5 | 0.50329  | 0.3         | 0           |
| F7CGC9 | Dnajc24            | DnaJ heat shock protein family (Hsp40   | 0.4485448  | 0.578797 | 0.77496  | 6 | 0.467795 | 0.4         | 0.2         |
| F7DBQ0 | Pdia6              | Protein disulfide-isomerase A6 (EC 5.3  | 0.1456749  | 0.161404 | 0.90255  | 8 | 0.393128 | 0.203571429 | 0.203571429 |
| F8VPK0 | Skic3              | Superkiller complex protein 3 (Ski3)    | -0.7793546 | 0.095785 | -8.13647 | 1 | 0.077852 | 0.7         | 0           |
| F8VPK5 | Rock2              | Rho-associated protein kinase (EC 2.7   | 0.3313049  | 0.171566 | 1.93106  | 8 | 0.089574 | 0.514285714 | 0.514285714 |
| F8VPM7 | Erc1               | ELKS/RAB6-interacting/CAST family m     | 0.5813257  | 0.260451 | 2.232    | 8 | 0.056122 | 0.45        | 0.45        |
| F8VPN4 | Ag1                | Glycogen debranching enzyme (EC 2.4     | -0.2140982 | 0.580571 | -0.36877 | 3 | 0.736786 | 0.65        | 0.15        |
| F8VPP8 | Zc3h7b             | Zinc finger CCCH type containing 7B     | 0.0855156  | 0.148288 | 0.57668  | 8 | 0.580013 | 0.485714286 | 0.485714286 |
| F8VPQ2 | Arid4a Rbbp1 Rbp1  | AT-rich interactive domain-containing I | -0.1419777 | 1.088139 | -0.13048 | 2 | 0.908129 | 0.6         | 0           |
| F8VPQ4 | Srgap3             | SLIT-ROBO Rho GTPase activating prot    | -0.1960444 | 0.189917 | -1.03226 | 8 | 0.332143 | 0.5         | 0.5         |
| F8VPU2 | Farp1              | FERM, ARHGEF and pleckstrin domain-     | -0.1039222 | 0.214081 | -0.48543 | 8 | 0.640383 | 0.377777778 | 0.377777778 |
| F8VPV3 | Zic2               | Zinc finger protein of the cerebellum 2 | 0.2400044  | 0.374975 | 0.64005  | 2 | 0.587677 | 0.6         | 0           |
| F8VPY2 | Taf5               | TATA-box binding protein associated f   | 0.1615534  | 0.116315 | 1.38894  | 1 | 0.397255 | 0.7         | 0           |
| F8VQ54 | Dicer1             | Endoribonuclease Dicer (EC 3.1.26.3)    | 0.3033522  | 0.303185 | 1.00055  | 8 | 0.346343 | 0.506666667 | 0.506666667 |
| F8VQC1 | Srp72              | Signal recognition particle subunit SRF | 0.1698268  | 0.193815 | 0.87623  | 8 | 0.406445 | 0.3         | 0.3         |
| F8VQG7 | N4bp2              | NEDD4 binding protein 2                 | -0.0246652 | 0.318078 | -0.07754 | 8 | 0.940095 | 0.3875      | 0.3875      |
| F8VQJ3 | Lamc1              | Laminin, gamma 1                        | 0.0320517  | 0.25531  | 0.12554  | 8 | 0.903193 | 0.43        | 0.43        |
| F8VQL9 | Ncor2              | Nuclear receptor co-repressor 2         | -0.0982395 | 0.28133  | -0.3492  | 8 | 0.735955 | 0.455555556 | 0.455555556 |
| F8WGW3 | Srbd1              | S1 RNA binding domain 1                 | -0.0255036 | 0.676706 | -0.03769 | 2 | 0.97336  | 0.6         | 0           |
| F8WGY3 | Zfp711             | Zinc finger protein 711                 | -0.1070781 | 0.154629 | -0.69248 | 3 | 0.538422 | 0.5         | 0           |
| F8WHT3 | Prcc2b             | Proline-rich coiled-coil 2B             | 0.0492971  | 0.220669 | 0.2234   | 8 | 0.828824 | 0.452380952 | 0.452380952 |
| F8WIE5 | Hectd1             | E3 ubiquitin-protein ligase (EC 2.3.2.2 | 0.0495677  | 0.184304 | 0.26894  | 8 | 0.794778 | 0.555       | 0.555       |
| G3FEZ6 | Brsk2              | BR serine/threonine kinase 2 transcrip  | 0.2561136  | 0.410404 | 0.62405  | 7 | 0.55238  | 0.5         | 0.4         |

|          |                     |                                         |            |          |          |   |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| G3UVU2   | Sf3a2               | Splicing factor 3a, subunit 2           | 0.0501328  | 0.0677   | 0.74052  | 8 | 0.480154 | 0.166666667 | 0.166666667 |
| G3UW85   | Erh                 | Enhancer of rudimentary homolog         | 0.3369913  | 0.147372 | 2.28667  | 6 | 0.062228 | 0.2         | 0           |
| O35969   | Gamt                | Guanidinoacetate N-methyltransferase    | 1.2958285  | 0.293125 | 4.42074  | 2 | 0.047549 | 0.6         | 0           |
| G3UXW9   | Gps1                | G protein pathway suppressor 1          | 0.2923545  | 0.388179 | 0.75314  | 8 | 0.472943 | 0.3375      | 0.3375      |
| G3UY52   | Usp9x               | Ubiquitin specific peptidase 9, X chron | 0.142989   | 0.591323 | 0.24181  | 5 | 0.81853  | 0.3         | 0           |
| G3UYS1   | Dctd                | dCMP deaminase                          | -0.4878426 | 0.206297 | -2.36476 | 5 | 0.06437  | 0.3         | 0           |
| G3UYU0   | Mex3a               | Mex3 RNA binding family member A        | -0.0824229 | 0.137207 | -0.60072 | 8 | 0.564654 | 0.32        | 0.32        |
| G3UYZ1   | Igsf8               | Immunoglobulin superfamily, member      | -0.0572577 | 0.20819  | -0.27503 | 8 | 0.790266 | 0.5125      | 0.5125      |
| G3UZ63   | Klhdc4              | Kelch domain containing 4               | 0.3398715  | 0.34781  | 0.97717  | 8 | 0.357103 | 0.333333333 | 0.333333333 |
| G3X8Q0   | Sp1                 | Trans-acting transcription factor 1     | 0.743986   | 0.555792 | 1.3386   | 8 | 0.217491 | 0.616666667 | 0.616666667 |
| G3X8R0   | Reep5               | Receptor expression-enhancing protein   | -0.0464456 | 0.245626 | -0.18909 | 4 | 0.859228 | 0.5         | 0.1         |
| G3X8R5   | Qrich1              | Glutamine-rich 1                        | -0.0554656 | 0.291237 | -0.19045 | 8 | 0.853702 | 0.2625      | 0.2625      |
| G3X8S1   | Dnajc19             | Mitochondrial import inner membrane     | 0.372975   | 0.386057 | 0.96611  | 7 | 0.366171 | 0.45        | 0.35        |
| G3X8S8   | Tsen15              | tRNA splicing endonuclease subunit 1    | 0.5174662  | 1.197954 | 0.43196  | 6 | 0.680863 | 0.433333333 | 0.233333333 |
| G3X8U3   | QNG1 2210016F16     | Queuosine 5'-phosphate N-glycosylase    | 0.124052   | 0.387414 | 0.32021  | 8 | 0.757016 | 0.5         | 0.5         |
| G3X8X0   | Dhx16               | RNA helicase (EC 3.6.4.13)              | 0.177952   | 0.132983 | 1.33815  | 4 | 0.25185  | 0.65        | 0.25        |
| G3X8Y3   | Naa15               | N(alpha)-acetyltransferase 15, NatA au  | 0.002261   | 0.261966 | 0.00863  | 8 | 0.993325 | 0.410344828 | 0.410344828 |
| G3X920   | Armc8               | Armado repeat-containing protein 8      | -0.0877267 | 0.594823 | -0.14748 | 7 | 0.886908 | 0.4         | 0.3         |
| Q9CYI0   |                     | Protein Njmu-R1                         | 1.2408029  | 0.497157 | 2.4958   | 6 | 0.046794 | 0.625       | 0.425       |
| G3X928   | Sec23ip             | Sec23 interacting protein               | -0.1723629 | 0.124033 | -1.38965 | 8 | 0.202084 | 0.352631579 | 0.352631579 |
| G3X934   | Wdr70               | WD repeat-containing protein 70         | -0.1041531 | 0.340891 | -0.30553 | 8 | 0.76776  | 0.542857143 | 0.542857143 |
| G3X963   | Atad2               | ATPase family, AAA domain containing    | -0.1916573 | 0.16396  | -1.16892 | 8 | 0.276083 | 0.511111111 | 0.511111111 |
| G3X9B1   | Heatr1              | HEAT repeat-containing protein 1        | -0.1362178 | 0.239448 | -0.56888 | 8 | 0.585048 | 0.375       | 0.375       |
| G3X9C8   | Lix1l               | Lix1-like                               | -0.5336379 | 0.32843  | -1.62482 | 6 | 0.155328 | 0.45        | 0.25        |
| G3X9J0   | Sipa1l3 Spal3       | Signal-induced proliferation-associated | -0.8394847 | 0.396492 | -2.11728 | 2 | 0.168438 | 0.6         | 0           |
| Q80XU3   | Nucks1 Nucks        | Nuclear ubiquitous casein and cyclin-c  | 1.1988554  | 0.470278 | 2.54925  | 8 | 0.034215 | 0.271428571 | 0.271428571 |
| G3X9Y5   | Ube4a               | Ubiquitin conjugation factor E4 (EC 2.  | 0.0739645  | 0.401354 | 0.18429  | 4 | 0.862754 | 0.7         | 0.3         |
| G3XA30   | Nsmce4a             | Non-structural maintenance of chrom     | 0.4010856  | 0.400814 | 1.00068  | 8 | 0.346285 | 0.52        | 0.52        |
| G4V4Z2   | gag                 | Gag protein                             | -0.7017437 | 0.389253 | -1.80279 | 6 | 0.121481 | 0.566666667 | 0.366666667 |
| Q8BK35   | Nop53 Gltscr2 Pict1 | Ribosome biogenesis protein NOP53 (     | 1.186232   | 0.362888 | 3.26887  | 5 | 0.022226 | 0.6         | 0.3         |
| G5E829   | Atp2b1              | Plasma membrane calcium-transportin     | -0.5111289 | 0.316366 | -1.61562 | 8 | 0.144839 | 0.433333333 | 0.433333333 |
| G5E870   | Trip12              | E3 ubiquitin-protein ligase TRIP12 (EC  | -0.2060793 | 0.199153 | -1.03478 | 8 | 0.331037 | 0.463333333 | 0.463333333 |
| G5E884   | Pak1                | non-specific serine/threonine protein I | 0.2294879  | 0.150808 | 1.52172  | 8 | 0.166574 | 0.25625     | 0.25625     |
| G5E896   | Edc4                | Enhancer of mRNA-decapping protein      | -0.0331504 | 0.116057 | -0.28564 | 8 | 0.782411 | 0.371875    | 0.371875    |
| G5E8A7   | Samd4b              | Sterile alpha motif domain containing   | 0.6371475  | 0.508368 | 1.25332  | 8 | 0.245477 | 0.3         | 0.3         |
| G5E8P1-2 | Brd1 Brpf2 Kiaa419  | Bromodomain-containing protein 1 (B     | 0.1839889  | 0.502971 | 0.3658   | 6 | 0.727062 | 0.6         | 0.4         |
| G5E8R2   | Tpm1                | Tropomyosin alpha-1 chain (Alpha-tro    | 0.4171934  | 0.374088 | 1.11523  | 8 | 0.29713  | 0.1         | 0.1         |
| G5E8R3   | Pcx                 | Pyruvate carboxylase (EC 6.4.1.1)       | 0.1236366  | 0.206038 | 0.60007  | 8 | 0.565068 | 0.423076923 | 0.423076923 |

|          |              |                                                      |            |          |          |   |          |             |             |
|----------|--------------|------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| G5E8R8   | Ubxn7        | UBX domain-containing protein 7                      | 0.2232879  | 0.313551 | 0.71213  | 8 | 0.496626 | 0.29375     | 0.29375     |
| G5E8T2   | Ttc3         | RING-type E3 ubiquitin transferase (E                | 0.0676626  | 0.162935 | 0.41527  | 8 | 0.688856 | 0.430769231 | 0.430769231 |
| G5E8V9-2 | Arfip1       | Arfaptin-1 (ADP-ribosylation factor-ini              | 3.90E-05   | 0.46852  | 8.33E-05 | 8 | 0.999936 | 0.3         | 0.3         |
| G5E924   | Hnrnpl       | Heterogeneous nuclear ribonucleopro                  | 0.1832668  | 0.23315  | 0.78605  | 8 | 0.45449  | 0.414285714 | 0.414285714 |
| H3BIX4   | Nptn         | Neuroplastin                                         | -0.3934885 | 0.690336 | -0.57    | 4 | 0.599169 | 0.55        | 0.15        |
| H3BK73   | Tor2a        | Torsin family 2 member A                             | 0.2678999  | 0.506917 | 0.52849  | 7 | 0.613495 | 0.5         | 0.4         |
| H3BKJ6   | Pou6f1       | POU domain, class 6, transcription fac               | -0.3768645 | 0.177896 | -2.11845 | 3 | 0.124365 | 0.5         | 0           |
| H3BKK2   | Knstrn D2Ert | Kinetochore-localized astrin/SPAG5 bi                | 0.5209362  | 0.468374 | 1.11222  | 8 | 0.298345 | 0.275       | 0.275       |
| H3BL26   | Tspan6       | Tetraspanin 6                                        | -0.394773  | 0.34687  | -1.1381  | 7 | 0.292527 | 0.533333333 | 0.433333333 |
| H3BL92   | Evi5l        | Ecotropic viral integration site 5 like              | 0.6799473  | 0.486881 | 1.39654  | 1 | 0.395609 | 0.7         | 0           |
| H3BLD4   | Kdm2a        | Lysine (K)-specific demethylase 2A                   | -0.9009207 | 0.44424  | -2.028   | 6 | 0.088909 | 0.5         | 0.3         |
| H7BWY8   | Tsr2         | Pre-rRNA-processing protein TSR2 hor                 | 0.3068595  | 0.288199 | 1.06475  | 8 | 0.318069 | 0.225       | 0.225       |
| H7BX14   | Tsen34       | tRNA-splicing endonuclease subunit S                 | 0.1401667  | 0.495092 | 0.28311  | 8 | 0.784279 | 0.35        | 0.35        |
| H9KV00   | Son          | Son DNA binding protein                              | 0.1488712  | 0.090437 | 1.64613  | 8 | 0.138355 | 0.342105263 | 0.342105263 |
| J3QM73   | Tnfaip8      | Tumor necrosis factor alpha-induced p                | 0.5558403  | 0.298049 | 1.86493  | 5 | 0.121201 | 0.3         | 0           |
| K3W4S6   | Gyg1 Gyg     | glycogenin glucosyltransferase (EC 2.4               | -0.0101244 | 0.259681 | -0.03899 | 7 | 0.969989 | 0.44        | 0.34        |
| M0QWP1   | Agrn         | Agrin                                                | -0.1545544 | 0.282476 | -0.54714 | 8 | 0.599208 | 0.45        | 0.45        |
| M0QWZ1   | Fam193a      | Family with sequence homology 193, n                 | 0.3493101  | 0.283411 | 1.23252  | 7 | 0.257542 | 0.5         | 0.4         |
| M1VHG3   | Mta1         | Metastasis-associated protein MTA1 isc               | -0.4457507 | 0.743588 | -0.59946 | 8 | 0.565453 | 0.375       | 0.375       |
| O08528   | Hk2          | Hexokinase-2 (EC 2.7.1.1) (Hexokinase                | -0.3892861 | 0.394577 | -0.98659 | 8 | 0.352739 | 0.4         | 0.4         |
| O08529   | Capn2        | Calpain-2 catalytic subunit (EC 3.4.22               | -0.176893  | 0.243983 | -0.72502 | 8 | 0.489099 | 0.418181818 | 0.418181818 |
| O08532   | Cacna2d1     | Ca <sup>v</sup> 2.1 voltage-gated calcium channel su | -0.1748808 | 0.248989 | -0.70236 | 6 | 0.508771 | 0.466666667 | 0.266666667 |
| O08539   | Bin1         | Myc box-dependent-interacting protei                 | -0.1926387 | 0.344935 | -0.55848 | 8 | 0.591801 | 0.3375      | 0.3375      |
| O08547   | Sec22b       | Vesicle-trafficking protein SEC22b (ER               | 0.5399205  | 0.352501 | 1.53169  | 8 | 0.164135 | 0.31        | 0.31        |
| Q9DB96   | Ngdn         | Neuroguidin (EIF4E-binding protein)                  | 1.1609531  | 0.297063 | 3.9081   | 6 | 0.00791  | 0.5         | 0.3         |
| O08553   | Dpysl2       | Dihydropyrimidinase-related protein 2                | 0.0509696  | 0.113016 | 0.451    | 8 | 0.663966 | 0.1609375   | 0.1609375   |
| O08576   | Rundc3a      | RUN domain-containing protein 3A (R                  | 1.077791   | 0.56697  | 1.90097  | 5 | 0.11572  | 0.3         | 0           |
| O08579   | Emd          | Emerin                                               | -0.2697301 | 0.166486 | -1.62013 | 8 | 0.143863 | 0.257894737 | 0.257894737 |
| O08582   | Gtpbp1       | GTP-binding protein 1 (G-protein 1) (C               | -0.0188634 | 0.214224 | -0.08805 | 8 | 0.931998 | 0.373913043 | 0.373913043 |
| O08583   | Alyref       | THO complex subunit 4 (Tho4) (Ally of                | 0.0478597  | 0.132407 | 0.36146  | 8 | 0.727116 | 0.135       | 0.135       |
| O08585   | Clta         | Clathrin light chain A (Lca)                         | -0.6090515 | 1.570484 | -0.38781 | 4 | 0.717909 | 0.55        | 0.15        |
| O08599   | Stxbp1       | Syntaxin-binding protein 1 (Protein un               | 0.0578627  | 0.228374 | 0.25337  | 8 | 0.806374 | 0.343478261 | 0.343478261 |
| O08609   | Mlx          | Max-like protein X (Max-like bHLHZip p               | 0.5993673  | 0.378126 | 1.5851   | 1 | 0.358298 | 0.7         | 0           |
| O08648   | Map3k4       | Mitogen-activated protein kinase kinase              | -0.2317292 | 0.411353 | -0.56333 | 3 | 0.612567 | 0.5         | 0           |
| O08663   | Metap2       | Methionine aminopeptidase 2 (MAP 2)                  | 0.0782474  | 0.182151 | 0.42958  | 8 | 0.67884  | 0.378125    | 0.378125    |
| Q9JJ28   | Flii         | Protein flightless-1 homolog                         | 1.1485472  | 0.234744 | 4.89277  | 6 | 0.002731 | 0.575       | 0.375       |
| O08715   | Akap1        | A-kinase anchor protein 1, mitochondi                | 0.137661   | 0.294844 | 0.46689  | 3 | 0.672393 | 0.7         | 0.2         |
| O08738   | Casp6        | Caspase-6 (CASP-6) (EC 3.4.22.59) (A                 | -0.0858707 | 0.172302 | -0.49837 | 8 | 0.631633 | 0.416666667 | 0.416666667 |

|          |                   |                                         |            |          |          |   |          |             |             |
|----------|-------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| O08749   | Dld               | Dihydrolipoyl dehydrogenase, mitochondr | -0.0498673 | 0.192001 | -0.25972 | 8 | 0.801636 | 0.252173913 | 0.252173913 |
| O08759   | Ube3a             | Ubiquitin-protein ligase E3A (EC 2.3.2  | 0.1313186  | 0.140393 | 0.93537  | 8 | 0.37697  | 0.371428571 | 0.371428571 |
| O08784   | Tcof1             | Treacle protein (Treacher Collins syndr | 0.2392319  | 0.361821 | 0.66119  | 8 | 0.527071 | 0.354285714 | 0.354285714 |
| O08788   | Dctn1             | Dynactin subunit 1 (150 kDa dynein-a    | 0.2779208  | 0.134339 | 2.06879  | 8 | 0.072364 | 0           | 0           |
| O08795-2 | Prkcsh            | Glucosidase 2 subunit beta (80K-H pr    | 0.1529042  | 0.186443 | 0.82011  | 8 | 0.435905 | 0.334615385 | 0.334615385 |
| O08807   | Prdx4             | Peroxiredoxin-4 (EC 1.11.1.24) (Antio   | -0.1141418 | 0.072611 | -1.57197 | 8 | 0.154601 | 0.27        | 0.27        |
| O08810   | Eftud2 Snrp116    | 116 kDa U5 small nuclear ribonucleop    | -0.1915132 | 0.113498 | -1.68737 | 8 | 0.130012 | 0.265       | 0.265       |
| O08848   | RO60 Ssa2 Trove2  | RNA-binding protein Ro60 (60 kDa SS     | 0.0951629  | 0.16605  | 0.5731   | 8 | 0.582325 | 0.294117647 | 0.294117647 |
| O08856   | Ell               | RNA polymerase II elongation factor EL  | -0.3856359 | 0.494465 | -0.7799  | 5 | 0.470735 | 0.55        | 0.25        |
| O08901   | Bub1              | Mitotic checkpoint serine/threonine-pr  | -0.4643964 | 0.213268 | -2.17752 | 6 | 0.072308 | 0.6         | 0.4         |
| O08912   | Galnt1            | Polypeptide N-acetylgalactosaminyltra   | -0.1578    | 0.370059 | -0.42642 | 8 | 0.681045 | 0.4         | 0.4         |
| O08915   | Aip               | AH receptor-interacting protein (AIP) ( | 0.1166434  | 0.282428 | 0.413    | 8 | 0.690452 | 0.325       | 0.325       |
| O08917   | Flot1             | Flotillin-1                             | -0.0414971 | 0.222139 | -0.18681 | 8 | 0.856462 | 0.46        | 0.46        |
| O08919   | Numb1 Nbl         | Numb-like protein                       | -0.7471025 | 1.322891 | -0.56475 | 6 | 0.592715 | 0.2         | 0           |
| O08992   | Sdcbp             | Syntenin-1 (Scaffold protein Pbp1) (S   | 0.2112805  | 0.23238  | 0.9092   | 8 | 0.389812 | 0.5         | 0.5         |
| O08997   | Atox1             | Copper transport protein ATOX1 (Met     | -0.2196141 | 0.536509 | -0.40934 | 8 | 0.693031 | 0.24        | 0.24        |
| O09012   | Pex5 Pxr1         | Peroxisomal targeting signal 1 receptor | 0.4197075  | 0.34433  | 1.21891  | 8 | 0.257597 | 0.42        | 0.42        |
| O09044   | Snap23 Sndt       | Synaptosomal-associated protein 23 (    | 0.0516511  | 0.379368 | 0.13615  | 8 | 0.895066 | 0.35        | 0.35        |
| O09061   | Psmb1             | Proteasome subunit beta type-1 (Macr    | 0.1827205  | 0.124736 | 1.46486  | 8 | 0.181122 | 0.247368421 | 0.247368421 |
| O09106   | Hdac1             | Histone deacetylase 1 (HD1) (EC 3.5.1   | -0.1678447 | 0.141948 | -1.18244 | 8 | 0.27098  | 0.336842105 | 0.336842105 |
| O09111   | Ndufb11 Np15      | NADH dehydrogenase [ubiquinone] 1 b     | -0.1681538 | 0.116976 | -1.43751 | 8 | 0.188513 | 0.266666667 | 0.266666667 |
| O09117   | Sypl1 Pphn Sypl   | Synaptophysin-like protein 1 (Pantopl   | -0.0003562 | 0.283588 | -0.00126 | 8 | 0.999028 | 0.45        | 0.45        |
| O09130   | Nfatc2ip Nip45    | NFATC2-interacting protein (45 kDa NI   | -0.0142664 | 0.338621 | -0.04213 | 8 | 0.967427 | 0.15        | 0.15        |
| O09131   | Gsto1 Gstx Gtsttl | Glutathione S-transferase omega-1 (G    | -0.0195545 | 0.232442 | -0.08413 | 8 | 0.935023 | 0.327272727 | 0.327272727 |
| O09167   | Rpl21             | Large ribosomal subunit protein eL21 (  | -0.0895542 | 0.441518 | -0.20283 | 8 | 0.84433  | 0.266666667 | 0.266666667 |
| O09172   | Gclm Gclr         | Glutamate--cysteine ligase regulatory s | 0.1311236  | 0.44044  | 0.29771  | 8 | 0.773509 | 0.425       | 0.425       |
| O35075   | Vps26c Dcra Dscr3 | Vacuolar protein sorting-associated pr  | 0.1970477  | 0.185833 | 1.06035  | 7 | 0.324196 | 0.466666667 | 0.366666667 |
| O35085   | Arx               | Homeobox protein ARX (Aristaless-rel    | 0.2463876  | 0.280931 | 0.87704  | 8 | 0.406031 | 0.54        | 0.54        |
| O35098   | Dpysl4 Crmp3 Ulip | Dihydropyrimidinase-related protein 4   | 0.5988775  | 0.325678 | 1.83886  | 8 | 0.103225 | 0.289655172 | 0.289655172 |
| O35114   | Scarb2            | Lysosome membrane protein 2 (85 kD      | -0.0546658 | 0.186353 | -0.29335 | 8 | 0.776724 | 0.366666667 | 0.366666667 |
| O35126   | Atn1 Drpla        | Atrophin-1 (Dentatorubral-pallidoluys   | 0.3287944  | 0.189374 | 1.73621  | 6 | 0.133206 | 0.45        | 0.25        |
| O35127   | Grcc10 C10        | Protein C10                             | 0.4175723  | 0.319384 | 1.30743  | 8 | 0.227389 | 0.211111111 | 0.211111111 |
| O35129   | Phb2 Bap Bcap37 R | Prohibitin-2 (B-cell receptor-associat  | -0.0496185 | 0.215874 | -0.22985 | 8 | 0.823977 | 0.141176471 | 0.141176471 |
| O35130   | Emg1 C2f Grcc2f   | Ribosomal RNA small subunit methyltr    | -0.1667304 | 0.370368 | -0.45017 | 7 | 0.666195 | 0.366666667 | 0.266666667 |
| O35144   | Terf2 Trf2        | Telomeric repeat-binding factor 2 (TTA  | -0.1145937 | 0.280823 | -0.40806 | 8 | 0.69393  | 0.475       | 0.475       |
| O35161   | Celsr1            | Cadherin EGF LAG seven-pass G-type      | 0.0654036  | 0.293213 | 0.22306  | 8 | 0.82908  | 0.6         | 0.6         |
| O35166   | Gosr2 Gs27        | Golgi SNAP receptor complex member      | 1.1113694  | 0.744939 | 1.49189  | 8 | 0.17407  | 0.433333333 | 0.433333333 |
| O35207   | Cdk2ap1 Cdkap1 D  | Cyclin-dependent kinase 2-associated    | -0.0340351 | 0.233341 | -0.14586 | 8 | 0.88764  | 0.1         | 0.1         |

|          |                     |                                           |            |          |          |    |          |             |             |
|----------|---------------------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| O35215   | Ddt                 | D-dopachrome decarboxylase (EC 4.1.       | 0.0855813  | 0.40439  | 0.21163  | 8  | 0.837687 | 0.316666667 | 0.316666667 |
| O70493   | Snx12               | Sorting nexin-12 (SDP8 protein)           | 1.1161625  | 0.332438 | 3.35751  | 8  | 0.009969 | 0.4         | 0.4         |
| O35226-2 | Psmd4 Mcb1          | 26S proteasome non-ATPase regulator       | 0.0469476  | 0.260951 | 0.17991  | 8  | 0.861697 | 0.45        | 0.45        |
| O35226   | Psmd4 Mcb1          | 26S proteasome non-ATPase regulator       | -0.3120794 | 0.217518 | -1.43473 | 8  | 0.189278 | 0.266666667 | 0.266666667 |
| O35250   | Exoc7 Exo70         | Exocyst complex component 7 (Exocy        | -0.0758127 | 0.333977 | -0.227   | 8  | 0.826117 | 0.466666667 | 0.466666667 |
| O35280   | Chek1 Chk1          | Serine/threonine-protein kinase Chk1      | 0.2035186  | 0.608884 | 0.33425  | 7  | 0.747983 | 0.628571429 | 0.528571429 |
| O35286   | Dhx15 Ddx15 Deah    | ATP-dependent RNA helicase DHX15 (I       | -0.0503646 | 0.143444 | -0.35111 | 8  | 0.734573 | 0.175675676 | 0.175675676 |
| O35295   | Purb                | Transcriptional regulator protein Pur-b   | 0.161015   | 0.31216  | 0.51581  | 8  | 0.619937 | 0.285714286 | 0.285714286 |
| O35317   | Pbx3                | Pre-B-cell leukemia transcription factor  | -0.3366162 | 0.636052 | -0.52923 | 7  | 0.613009 | 0.466666667 | 0.366666667 |
| O35326   | Srsf5 Hrs Sfrs5     | Serine/arginine-rich splicing factor 5 (E | -0.1197587 | 0.226406 | -0.52896 | 8  | 0.611193 | 0.209090909 | 0.209090909 |
| O35343   | Kpna4 Qip1          | Importin subunit alpha-3 (Importin alp    | 0.0972943  | 0.21241  | 0.45805  | 8  | 0.659102 | 0.238888889 | 0.238888889 |
| O35344   | Kpna3 Qip2          | Importin subunit alpha-4 (Importin alp    | 0.2214753  | 0.393396 | 0.56298  | 8  | 0.588872 | 0.276470588 | 0.276470588 |
| O35345   | Kpna6 Kpna5         | Importin subunit alpha-7 (Importin alp    | 0.6803212  | 0.336396 | 2.02238  | 8  | 0.077771 | 0.4         | 0.4         |
| O35381   | Anp32a Anp32 Lan    | Acidic leucine-rich nuclear phosphopri    | 0.1630227  | 0.156609 | 1.04096  | 8  | 0.32833  | 0.159090909 | 0.159090909 |
| O35382   | Exoc4 Sec8 Sec8l1   | Exocyst complex component 4 (Exocy        | -0.0455996 | 0.371723 | -0.12267 | 8  | 0.905393 | 0.433333333 | 0.433333333 |
| O35387   | Hax1 Hs1bp1         | HCLS1-associated protein X-1 (HS1-a       | 1.1506289  | 0.499266 | 2.30464  | 6  | 0.060713 | 0.5         | 0.3         |
| O35393   | Efnb3               | Ephrin-B3                                 | -0.0513472 | 0.351515 | -0.14607 | 2  | 0.897257 | 0.6         | 0           |
| O35405   | Pld3 Sam9           | 5'-3' exonuclease PLD3 (EC 3.1.16.1) (    | 0.028793   | 0.171013 | 0.16837  | 7  | 0.871056 | 0.566666667 | 0.466666667 |
| O35427   | Crcp                | DNA-directed RNA polymerase III subu      | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| O35435   | Dhodh               | Dihydroorotate dehydrogenase (quino       | 0.3126989  | 0.535767 | 0.58365  | 3  | 0.60044  | 0.5         | 0           |
| Q9CW79   | Golga1              | Golgin subfamily A member 1 (Golgin-      | 1.1046195  | 0.307259 | 3.59508  | 3  | 0.03689  | 0.5         | 0           |
| Q8K0Z7   | Taco1 Ccdc44        | Translational activator of cytochrome c   | 1.045429   | 0.253291 | 4.12738  | 8  | 0.00331  | 0.4         | 0.4         |
| O35459   | Ech1                | Delta(3,5)-Delta(2,4)-dienoyl-CoA isom    | -0.606094  | 0.712128 | -0.8511  | 2  | 0.484358 | 0.6         | 0           |
| O35465-2 | Fkbp8 Fkbp38 Sam1   | Peptidyl-prolyl cis-trans isomerase FKE   | 0.072628   | 0.254077 | 0.28585  | 8  | 0.782254 | 0.314285714 | 0.314285714 |
| O35492   | Clk3                | Dual specificity protein kinase CLK3 (E   | -0.2220285 | 0.315829 | -0.703   | 8  | 0.501996 | 0.4         | 0.4         |
| O35551   | Rabep1 Rab5ep Rab   | Rab GTPase-binding effector protein 1     | 0.0257259  | 0.374971 | 0.06861  | 7  | 0.94722  | 0.66        | 0.56        |
| O35593   | Psmd14 Pad1         | 26S proteasome non-ATPase regulator       | -0.0727371 | 0.179735 | -0.40469 | 8  | 0.696309 | 0.241176471 | 0.241176471 |
| O35594   | Ift81 Cdv-1 Cdv1    | Intraflagellar transport protein 81 hom   | -0.121811  | 0.688528 | -0.17692 | 4  | 0.868172 | 0.4         | 0           |
| O35598   | Adam10 Kuz Madm     | Disintegrin and metalloproteinase dom     | -0.6532708 | 0.351011 | -1.86111 | 7  | 0.10504  | 0.52        | 0.42        |
| O35607   | Bmpr2               | Bone morphogenetic protein receptor       | -2.358399  | 0.862829 | -2.73333 | 3  | 0.071739 | 0.5         | 0           |
| O35609   | Scamp3              | Secretory carrier-associated membran      | -0.246516  | 0.304694 | -0.80906 | 8  | 0.441876 | 0.4         | 0.4         |
| O35618   | Mdm4 Mdmx           | Protein Mdm4 (Double minute 4 prote       | 0.0846071  | 0.221444 | 0.38207  | 4  | 0.721841 | 0.65        | 0.25        |
| Q8R1T1   | Chmp7               | Charged multivesicular body protein 7     | 1.0068901  | 0.383768 | 2.62369  | 8  | 0.030475 | 0.416666667 | 0.416666667 |
| O35643   | Ap1b1 Adtb1         | AP-1 complex subunit beta-1 (Adaptor      | 0.0803663  | 0.204459 | 0.39307  | 8  | 0.704536 | 0.377272727 | 0.377272727 |
| O35648   | Cetn3 Cen3          | Centrin-3                                 | -0.4901129 | 0.365553 | -1.34075 | 6  | 0.228532 | 0.425       | 0.225       |
| O35654   | Pold2               | DNA polymerase delta subunit 2 (DNA       | 0.148895   | 0.098678 | 1.5089   | 8  | 0.16976  | 0.36        | 0.36        |
| O35680   | Mrps12 Rpms12       | Small ribosomal subunit protein uS12      | -0.0502431 | 0.552873 | -0.09088 | 7  | 0.930137 | 0.1         | 0           |
| O35684   | Serpini1 Pi12 Spi17 | Neuroserpin (Peptidase inhibitor 12) (    | 0.114979   | 0.289129 | 0.39767  | 7  | 0.702719 | 0.1         | 0           |

|        |                   |                                                           |            |          |          |   |          |             |             |
|--------|-------------------|-----------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| O35685 | Nudc              | Nuclear migration protein nudC (Nucleo)                   | 0.1926847  | 0.240109 | 0.80249  | 8 | 0.445454 | 0.216666667 | 0.216666667 |
| O35691 | Pnn               | Pinin                                                     | 0.1854989  | 0.279575 | 0.6635   | 8 | 0.525663 | 0.295652174 | 0.295652174 |
| O35709 | Enc1 Enc-1        | Ectoderm-neural cortex protein 1 (EN1)                    | 0.1255736  | 0.315453 | 0.39807  | 6 | 0.704353 | 0.55        | 0.35        |
| O35730 | Ring1 Ring1A Rnf1 | E3 ubiquitin-protein ligase RING1 (EC 2.3.2.27)           | 0.0665589  | 0.112924 | 0.58941  | 3 | 0.597028 | 0.5         | 0           |
| O35737 | Hnrnp1 Hnrph Hn   | Heterogeneous nuclear ribonucleoprotein 1                 | 0.0370224  | 0.120959 | 0.30607  | 8 | 0.767362 | 0.204761905 | 0.204761905 |
| O35738 | Klf12 Ap2rep      | Krueppel-like factor 12 (Transcription factor)            | 0.7447333  | 0.490715 | 1.51765  | 7 | 0.172892 | 0.533333333 | 0.433333333 |
| O35841 | Api5              | Apoptosis inhibitor 5 (API-5) (AAC-11)                    | -0.0555576 | 0.118345 | -0.46945 | 8 | 0.651275 | 0.266666667 | 0.266666667 |
| O35857 | Timm44 Mimt44 Tir | Mitochondrial import inner membrane protein 44            | 0.1781832  | 0.279079 | 0.63847  | 8 | 0.541011 | 0.390909091 | 0.390909091 |
| O35864 | Cops5 Csn5 Jab1 K | COP9 signalosome complex subunit 5                        | 0.3178745  | 0.267086 | 1.19016  | 8 | 0.268102 | 0.34375     | 0.34375     |
| O35874 | Slc1a4 Asct1 Satt | Neutral amino acid transporter A (Alanine)                | -0.1748787 | 0.295116 | -0.59258 | 8 | 0.569832 | 0.475       | 0.475       |
| O35887 | Calu              | Calumenin (Crocabin)                                      | 0.0122163  | 0.070521 | 0.17323  | 8 | 0.866775 | 0.025       | 0.025       |
| O35900 | Lsm2 G7b          | U6 snRNA-associated Sm-like protein 1                     | -0.4975333 | 0.682794 | -0.72867 | 8 | 0.486982 | 0.3         | 0.3         |
| O35927 | Ctnnd2 Catnd2 Np1 | Catenin delta-2 (Neural plakophilin-related)              | 0.5891379  | 0.257761 | 2.2856   | 8 | 0.051618 | 0.438461538 | 0.438461538 |
| O35943 | Fxn Frda          | Frataxin, mitochondrial (Fxn) (EC 1.16.3.1)               | -0.0642126 | 0.282327 | -0.22744 | 8 | 0.825786 | 0.275       | 0.275       |
| P07724 | Alb Alb-1 Alb1    | Albumin                                                   | 0.9684997  | 0.387604 | 2.49868  | 8 | 0.037018 | 0.251724138 | 0.251724138 |
| O35972 | Mrpl23 L23mrp     | Large ribosomal subunit protein uL23r                     | -0.0022184 | 0.262131 | -0.00846 | 8 | 0.993455 | 0.333333333 | 0.333333333 |
| P43006 | Slc1a2 Eaat2 Glt1 | Excitatory amino acid transporter 2 (Glutamate)           | 0.9509906  | 0.173482 | 5.48177  | 3 | 0.011939 | 0.6         | 0.1         |
| O54692 | Zw10              | Centromere/kinetochore protein zw10                       | 0.0495398  | 0.182902 | 0.27085  | 8 | 0.79336  | 0.466666667 | 0.466666667 |
| O54734 | Ddost             | Dolichyl-diphosphooligosaccharide--pyrophosphatase        | -0.3721926 | 0.271185 | -1.37247 | 8 | 0.207161 | 0.181818182 | 0.181818182 |
| O54774 | Ap3d1 Ap3d        | AP-3 complex subunit delta-1 (AP-3 complex)               | -0.2100675 | 0.164743 | -1.27512 | 8 | 0.238049 | 0.44375     | 0.44375     |
| O54825 | Bysl              | Bystin                                                    | 0.0998126  | 0.333075 | 0.29967  | 8 | 0.772067 | 0.416666667 | 0.416666667 |
| O54833 | Csnk2a2           | Casein kinase II subunit alpha' (CK II alpha')            | 0.1904944  | 0.223243 | 0.85331  | 8 | 0.418305 | 0.415384615 | 0.415384615 |
| O54836 | Zmat3 Pag608 Wig1 | Zinc finger matrin-type protein 3 (Wild-type)             | -0.447068  | 0.452229 | -0.98859 | 2 | 0.427068 | 0.6         | 0           |
| P35441 | Thbs1 Tsp1        | Thrombospondin-1 (Glycoprotein G)                         | 0.9490689  | 0.178743 | 5.30969  | 4 | 0.006047 | 0.4         | 0           |
| O54879 | Hmgb3 Hmg2a Hmg   | High mobility group protein B3 (High mobility)            | 0.08535    | 0.230668 | 0.37001  | 8 | 0.720978 | 0.233333333 | 0.233333333 |
| O54916 | Reps1             | RalBP1-associated Eps domain-containing protein           | 0.5728744  | 0.300029 | 1.9094   | 8 | 0.092617 | 0.466666667 | 0.466666667 |
| O54941 | Smace1 Baf57      | SWI/SNF-related matrix-associated actin-binding protein 1 | 0.1122062  | 0.185169 | 0.60597  | 8 | 0.561332 | 0.295652174 | 0.295652174 |
| O54946 | Dnajb6 Hsj2 Mrj   | DnaJ homolog subfamily B member 6 (Hsp70)                 | 0.1795981  | 0.494583 | 0.36313  | 8 | 0.725915 | 0.35        | 0.35        |
| O54950 | Prkag1 Prkaac     | 5'-AMP-activated protein kinase subunit gamma             | -0.0098716 | 0.344265 | -0.02867 | 5 | 0.978234 | 0.3         | 0           |
| O54956 | Pole2             | DNA polymerase epsilon subunit 2 (DNA polymerase)         | -0.2578093 | 0.238671 | -1.08019 | 7 | 0.315863 | 0.25        | 0.15        |
| O54962 | Banf1 Baf L2bp1   | Barrier-to-autointegration factor (LAP2)                  | 0.2293051  | 0.205671 | 1.11491  | 8 | 0.297258 | 0.225       | 0.225       |
| O54983 | Crym              | Ketimine reductase mu-crystallin (EC 1.1.1.1)             | 0.3144972  | 0.320909 | 0.98002  | 3 | 0.399347 | 0.6         | 0.1         |
| O54984 | Get3 Arsa Asna1   | ATPase GET3 (EC 3.6.-.-) (Arsenical pump)                 | 0.1076219  | 0.101985 | 1.05527  | 8 | 0.322124 | 0.252380952 | 0.252380952 |
| O54988 | Slk Kiaa0204 Stk2 | STE20-like serine/threonine-protein kinase                | -0.0968888 | 0.303009 | -0.31976 | 8 | 0.757344 | 0.490909091 | 0.490909091 |
| O54990 | Prom1 Prom Prom1  | Prominin-1 (Antigen AC133 homolog)                        | -0.5165917 | 0.279656 | -1.84724 | 8 | 0.101908 | 0.4         | 0.4         |
| O55013 | Trappc3 Bet3      | Trafficking protein particle complex subunit 3            | -0.4762337 | 0.371495 | -1.28194 | 7 | 0.240687 | 0.433333333 | 0.333333333 |
| O55022 | Pgrmc1 Pgrmc      | Membrane-associated progesterone receptor component 1     | 0.0068018  | 0.117981 | 0.05765  | 8 | 0.95544  | 0.264285714 | 0.264285714 |
| O55028 | Bckdk             | Branched-chain alpha-ketoacid dehydrogenase               | -0.1037459 | 2.107847 | -0.04922 | 2 | 0.965218 | 0.6         | 0           |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| O55029   | Copb2               | Coatomer subunit beta' (Beta'-coat pr    | -0.0981033 | 0.137509 | -0.71343 | 8 | 0.49586  | 0.3         | 0.3         |
| O55033   | Nck2 Grb4           | Cytoplasmic protein NCK2 (Growth fa      | -0.2798531 | 0.230283 | -1.21526 | 8 | 0.258914 | 0.266666667 | 0.266666667 |
| O55042   | Snca Syn            | Alpha-synuclein (Non-A beta compone      | -0.1198712 | 0.210792 | -0.56867 | 8 | 0.585186 | 0.36        | 0.36        |
| O55060   | Tpmt                | Thiopurine S-methyltransferase (EC 2.    | -0.0515134 | 0.206677 | -0.24925 | 8 | 0.80945  | 0.6         | 0.6         |
| O55091   | Impact              | Protein IMPACT (Imprinted and ancien     | 0.7396235  | 0.314242 | 2.35367  | 1 | 0.255767 | 0.7         | 0           |
| O55106   | Strn                | Striatin                                 | 0.1529388  | 0.22606  | 0.67654  | 8 | 0.517776 | 0.4         | 0.4         |
| G3X9N3   | Pnma8b Pnmal2       | PNMA family member 8B                    | 0.9464956  | 0.366355 | 2.58354  | 7 | 0.036284 | 0.525       | 0.425       |
| O55126   | Nipsnap2 Gbas       | Protein NipSnap homolog 2 (NipSnap'      | -0.3136379 | 0.468066 | -0.67007 | 8 | 0.52168  | 0.444444444 | 0.444444444 |
| O55128   | Sap18               | Histone deacetylase complex subunit 5    | 1.1877953  | 1.273401 | 0.93277  | 8 | 0.378229 | 0.35        | 0.35        |
| O55135   | Eif6 Itgb4bp        | Eukaryotic translation initiation factor | 0.1694029  | 0.214384 | 0.79018  | 8 | 0.452205 | 0.325       | 0.325       |
| O55137   | Acot1 Cte1          | Acyl-coenzyme A thioesterase 1 (Acyl-C   | 0.1119635  | 0.340393 | 0.32892  | 8 | 0.750658 | 0.25        | 0.25        |
| O55142   | Rpl35a              | Large ribosomal subunit protein eL33 (   | -0.2936128 | 0.526377 | -0.5578  | 8 | 0.592244 | 0.328571429 | 0.328571429 |
| O55143   | Atp2a2              | Sarcoplasmic/endoplasmic reticulum c     | -0.0741795 | 0.343665 | -0.21585 | 8 | 0.834508 | 0.328888889 | 0.328888889 |
| O55176   | Pja1                | E3 ubiquitin-protein ligase Praja-1 (Pra | -0.1721744 | 0.223059 | -0.77188 | 7 | 0.465441 | 0.25        | 0.15        |
| O55201   | Supt5h Supt5        | Transcription elongation factor SPT5 (I  | 0.1472466  | 0.144115 | 1.02173  | 8 | 0.336808 | 0.335897436 | 0.335897436 |
| O55222   | Ilk ILK1 ILK2       | Integrin-linked protein kinase (EC 2.7.1 | 0.1583927  | 0.198265 | 0.79889  | 8 | 0.447418 | 0.345454545 | 0.345454545 |
| O55234   | Psmb5               | Proteasome subunit beta type-5 (EC 3     | -0.0675138 | 0.111474 | -0.60565 | 8 | 0.561534 | 0.13125     | 0.13125     |
| O55236   | Rngtt Cap1a         | mRNA-capping enzyme (HCE) (MCE1)         | -0.2225749 | 0.252119 | -0.88282 | 8 | 0.403082 | 0.5         | 0.5         |
| O70126   | Aurkb Aik2 Aim1 Air | Aurora kinase B (EC 2.7.11.1) (Aurora    | -0.0755346 | 0.243532 | -0.31016 | 8 | 0.764363 | 0.15        | 0.15        |
| O70152   | Dpm1                | Dolichol-phosphate mannosyltransfer      | -0.0284525 | 0.280332 | -0.1015  | 5 | 0.923101 | 0.466666667 | 0.166666667 |
| O70161-2 | Pip5k1c Kiaa0589    | Phosphatidylinositol 4-phosphate 5-k     | 0.0499162  | 0.329075 | 0.15169  | 8 | 0.88319  | 0.35        | 0.35        |
| O70166   | Stmn3 Sclip         | Stathmin-3 (Hippocampus abundant t       | 0.7180479  | 0.56752  | 1.26524  | 7 | 0.246274 | 0.4         | 0.3         |
| O70194   | Eif3d Eif3s7        | Eukaryotic translation initiation factor | -0.1151587 | 0.166214 | -0.69283 | 8 | 0.508023 | 0.273076923 | 0.273076923 |
| O70201-2 | Birc5 Api4 lap4     | Baculoviral IAP repeat-containing prote  | 0.0095484  | 0.575703 | 0.01659  | 6 | 0.987305 | 0.45        | 0.25        |
| O70230   | Znf143 Staf Zfp143  | Zinc finger protein 143 (Zfp-143) (Sele  | 0.1170784  | 0.447985 | 0.26134  | 6 | 0.802567 | 0.58        | 0.38        |
| Q8BVE3   | Atp6v1h             | V-type proton ATPase subunit H (V-AT     | 0.9450016  | 0.365169 | 2.58785  | 8 | 0.032221 | 0.341666667 | 0.341666667 |
| P46096   | Syt1                | Synaptotagmin-1 (Synaptotagmin I) (S     | 0.9383026  | 0.354661 | 2.64563  | 6 | 0.038251 | 0.533333333 | 0.333333333 |
| O70274   | Ptp4a2 Prl2         | Protein tyrosine phosphatase type IVA    | 0.1162647  | 0.400471 | 0.29032  | 8 | 0.778955 | 0.56        | 0.56        |
| O70279   | Ess2 Dgcr14 Dgsi E  | Splicing factor ESS-2 homolog (ES2 pr    | 0.4844194  | 0.637646 | 0.7597   | 4 | 0.489745 | 0.566666667 | 0.166666667 |
| Q9CRA5   | Golph3 Gpp34        | Golgi phosphoprotein 3 (Coat protein     | 0.9212512  | 0.368823 | 2.49781  | 8 | 0.037068 | 0.371428571 | 0.371428571 |
| O70310   | Nmt1                | Glycylpeptide N-tetradecanoyltransfer    | 0.2479127  | 0.250672 | 0.98899  | 8 | 0.351632 | 0.388888889 | 0.388888889 |
| O70311   | Nmt2                | Glycylpeptide N-tetradecanoyltransfer    | -0.1559155 | 0.387201 | -0.40267 | 8 | 0.697735 | 0.3         | 0.3         |
| O70325   | Gpx4                | Phospholipid hydroperoxide glutathio     | 0.250408   | 0.186111 | 1.34548  | 8 | 0.21536  | 0.2125      | 0.2125      |
| O70333   | Cript               | Cysteine-rich PDZ-binding protein (Cy    | 0.4183855  | 0.797155 | 0.52485  | 8 | 0.613918 | 0.15        | 0.15        |
| O70378   | Emc8 Cox4al Cox4r   | ER membrane protein complex subuni       | 0.117336   | 0.157155 | 0.74662  | 8 | 0.476657 | 0.4         | 0.4         |
| O70400   | Pdlim1 Clim1        | PDZ and LIM domain protein 1 (C-term     | 0.2067403  | 0.227069 | 0.91047  | 8 | 0.389182 | 0.416666667 | 0.416666667 |
| O70435   | Psma3               | Proteasome subunit alpha type-3 (Mac     | -0.0559147 | 0.127099 | -0.43993 | 8 | 0.67163  | 0.0875      | 0.0875      |
| O70439   | Stx7 Syn7           | Syntaxin-7                               | 0.5560275  | 0.291912 | 1.90478  | 8 | 0.093279 | 0.414285714 | 0.414285714 |

|          |                    |                                                             |            |          |          |   |          |             |             |
|----------|--------------------|-------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| O70475   | Ugdh               | UDP-glucose 6-dehydrogenase (UDP-glucose 6-dehydrogenase)   | 0.1770548  | 0.189914 | 0.93229  | 8 | 0.378464 | 0.341666667 | 0.341666667 |
| O70480   | Vamp4              | Vesicle-associated membrane protein 4                       | 0.5635451  | 0.567873 | 0.99238  | 2 | 0.425595 | 0.6         | 0           |
| P28741   | Kif3a Kif3         | Kinesin-like protein KIF3A (Microtubule-associated protein) | 0.8994243  | 0.244806 | 3.67403  | 8 | 0.006273 | 0.425       | 0.425       |
| O70494   | Sp3                | Transcription factor Sp3                                    | 0.2440849  | 0.375119 | 0.65069  | 8 | 0.533487 | 0.4         | 0.4         |
| O70503   | Hsd17b12 Kik1      | Very-long-chain 3-oxoacyl-CoA reductase                     | -0.2733345 | 0.610097 | -0.44802 | 8 | 0.666024 | 0.407692308 | 0.407692308 |
| O70551   | Srpki1             | SRSF protein kinase 1 (EC 2.7.11.1) (SRSF)                  | 0.0796634  | 0.23481  | 0.33927  | 8 | 0.743143 | 0.253333333 | 0.253333333 |
| O70572   | Smpd2              | Sphingomyelin phosphodiesterase 2 (SMPD2)                   | -0.5774052 | 0.254774 | -2.26635 | 3 | 0.10829  | 0.5         | 0           |
| O70583   | Mid1 Fxy Trim18    | E3 ubiquitin-protein ligase Midline-1 (E3)                  | 1.2358563  | 0.672999 | 1.83634  | 7 | 0.108928 | 0.6         | 0.5         |
| O70589   | Cask Lin-2         | Peripheral plasma membrane protein CASK                     | -0.2735591 | 0.259499 | -1.05418 | 8 | 0.322595 | 0.371428571 | 0.371428571 |
| O70591   | Pfdn2 Pfd2         | Prefoldin subunit 2                                         | 0.2067677  | 0.278508 | 0.74241  | 8 | 0.479066 | 0.32        | 0.32        |
| Q80TB8   | Vat1l Kiaa1576     | Synaptic vesicle membrane protein VAMP                      | 0.883416   | 0.194278 | 4.54718  | 8 | 0.001881 | 0.54        | 0.54        |
| O88271   | Cfdp1 Bcnt Cfdp Cj | Craniofacial development protein 1 (2)                      | -0.0532922 | 0.10401  | -0.51237 | 8 | 0.622233 | 0.175       | 0.175       |
| O88291   | Znf326 Zan75 Zfp32 | DBIRD complex subunit ZNF326 (Zinc finger)                  | 0.1452994  | 0.349322 | 0.41595  | 8 | 0.688383 | 0.375       | 0.375       |
| O88307   | Sorl1              | Sortilin-related receptor (Gp250) (Low density)             | -0.798979  | 0.539481 | -1.48101 | 1 | 0.378086 | 0.7         | 0           |
| O88322   | Nid2               | Nidogen-2 (NID-2) (Entactin-2)                              | -0.8381002 | 0.424214 | -1.97566 | 8 | 0.083609 | 0.563636364 | 0.563636364 |
| O88342   | Wdr1               | WD repeat-containing protein 1 (Actin-binding)              | 0.1085229  | 0.169887 | 0.6388   | 8 | 0.540809 | 0.260526316 | 0.260526316 |
| O88384   | Vti1b Vti1l1       | Vesicle transport through interaction vti                   | 0.1135251  | 0.49817  | 0.22788  | 8 | 0.825453 | 0.35        | 0.35        |
| O88441   | Mtx2 MNCb-0780     | Metaxin-2 (Mitochondrial outer membrane)                    | -0.1703439 | 0.508174 | -0.33521 | 8 | 0.746089 | 0.477777778 | 0.477777778 |
| O88455   | Dhcr7              | 7-dehydrocholesterol reductase (7-DHAP)                     | 0.1604626  | 0.212214 | 0.75613  | 8 | 0.471245 | 0.2         | 0.2         |
| O88456   | Capns1 Capn4       | Calpain small subunit 1 (CSS1) (Calcium)                    | -0.1571395 | 0.269249 | -0.58362 | 8 | 0.575556 | 0.288888889 | 0.288888889 |
| O88477   | Igf2bp1 Vickz1     | Insulin-like growth factor 2 mRNA-binding                   | 0.0992012  | 0.277061 | 0.35805  | 8 | 0.729571 | 0.18974359  | 0.18974359  |
| O88485   | Dync1i1 Dnci1 Dnci | Cytoplasmic dynein 1 intermediate chain                     | 0.1464849  | 0.149498 | 0.97984  | 4 | 0.382642 | 0.55        | 0.15        |
| O88491   | Nsd1               | Histone-lysine N-methyltransferase, H3                      | -0.0558386 | 0.392624 | -0.14222 | 8 | 0.890424 | 0.56        | 0.56        |
| O88508   | Dnmt3a             | DNA (cytosine-5)-methyltransferase 3a                       | 0.0633274  | 0.223165 | 0.28377  | 8 | 0.783793 | 0.372413793 | 0.372413793 |
| O88520   | Shoc2              | Leucine-rich repeat protein SHOC-2 (P)                      | 0.2022591  | 0.13791  | 1.4666   | 8 | 0.18066  | 0.283333333 | 0.283333333 |
| O88522   | Ikbkg Nemo         | NF-kappa-B essential modulator (NEMO)                       | 0.1014136  | 0.343766 | 0.29501  | 6 | 0.77793  | 0.566666667 | 0.566666667 |
| O88531   | Ppt1 Cln1 Ppt      | Palmitoyl-protein thioesterase 1 (PPT1)                     | -0.0491849 | 0.162713 | -0.30228 | 8 | 0.770148 | 0.316666667 | 0.316666667 |
| O88532   | Zfr                | Zinc finger RNA-binding protein                             | -0.0761789 | 0.246628 | -0.30888 | 8 | 0.765302 | 0.403333333 | 0.403333333 |
| O88543   | Cops3 Csn3         | COP9 signalosome complex subunit 3                          | 0.2570626  | 0.232444 | 1.10591  | 8 | 0.300911 | 0.236842105 | 0.236842105 |
| O88544   | Cops4 Csn4         | COP9 signalosome complex subunit 4                          | 0.3839877  | 0.28296  | 1.35704  | 8 | 0.211815 | 0.302857143 | 0.302857143 |
| O88545   | Cops6 Csn6         | COP9 signalosome complex subunit 6                          | -0.0044946 | 0.186009 | -0.02416 | 8 | 0.981314 | 0.313333333 | 0.313333333 |
| O88554   | Parp2 Adprt2 Adprt | Poly [ADP-ribose] polymerase 2 (PARP-2)                     | -0.1638177 | 0.254151 | -0.64457 | 7 | 0.539747 | 0.525       | 0.425       |
| O88559   | Men1               | Menin                                                       | -0.248411  | 0.207252 | -1.19859 | 8 | 0.264984 | 0.466666667 | 0.466666667 |
| O88569-3 | Hnrnpa2b1 Hnrpa2   | Heterogeneous nuclear ribonucleoprotein                     | 0.0085813  | 0.090378 | 0.09495  | 3 | 0.930342 | 0.7         | 0.2         |
| O88569   | Hnrnpa2b1 Hnrpa2   | Heterogeneous nuclear ribonucleoprotein                     | -0.1158138 | 0.170917 | -0.6776  | 8 | 0.517136 | 0.2         | 0.2         |
| O88574   | Sap30              | Histone deacetylase complex subunit 5                       | 0.3092509  | 0.240594 | 1.28536  | 8 | 0.234624 | 0.4         | 0.4         |
| O88587   | Comt Comt1         | Catechol O-methyltransferase (EC 2.1.1)                     | 0.2857256  | 0.307665 | 0.92869  | 8 | 0.380217 | 0.5125      | 0.5125      |
| O88622   | Parg               | Poly(ADP-ribose) glycohydrolase (EC 3.1)                    | 0.3029113  | 0.59143  | 0.51217  | 8 | 0.62237  | 0.533333333 | 0.533333333 |

|        |                     |                                          |            |          |          |    |          |             |             |
|--------|---------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| O88653 | Lamtor3 Map2k1ip1   | Ragulator complex protein LAMTOR3 (L     | 0.466316   | 0.337696 | 1.38088  | 8  | 0.204663 | 0.28        | 0.28        |
| O88665 | Brd7 Bp75           | Bromodomain-containing protein 7 (7      | 0.2417856  | 0.351199 | 0.68846  | 8  | 0.510631 | 0.425       | 0.425       |
| O88696 | Clpp                | ATP-dependent Clp protease proteolyt     | -0.0366658 | 0.218948 | -0.16746 | 8  | 0.871161 | 0.228571429 | 0.228571429 |
| O88708 | Orc4 Orc4l          | Origin recognition complex subunit 4     | -0.3851152 | 0.44017  | -0.87492 | 6  | 0.415261 | 0.4         | 0.2         |
| O88712 | Ctbp1               | C-terminal-binding protein 1 (CtBP1) (   | 0.1136367  | 0.278808 | 0.40758  | 8  | 0.69427  | 0.275       | 0.275       |
| O88738 | Birc6 Kiaa1289      | Baculoviral IAP repeat-containing prote  | -0.2008786 | 0.218417 | -0.9197  | 8  | 0.38462  | 0.411764706 | 0.411764706 |
| O88741 | Gdap1               | Ganglioside-induced differentiation-as   | 1.1717426  | 0.771198 | 1.51938  | 4  | 0.203292 | 0.6         | 0.2         |
| O88746 | Tom1                | Target of Myb1 membrane trafficking p    | 0.3416114  | 0.196126 | 1.74179  | 8  | 0.119718 | 0.475       | 0.475       |
| O88796 | Rpp30 Rnasep2       | Ribonuclease P protein subunit p30 (F    | 0.148974   | 0.203544 | 0.7319   | 8  | 0.485115 | 0.409090909 | 0.409090909 |
| O88809 | Dcx Dcn             | Neuronal migration protein doublecori    | -0.0869989 | 0.432476 | -0.20116 | 2  | 0.859173 | 0.6         | 0           |
| O88811 | Stam2 Hbp           | Signal transducing adapter molecule 2    | 0.0206078  | 0.262025 | 0.07865  | 8  | 0.939244 | 0.483333333 | 0.483333333 |
| O88824 | Jtb Gm622           | Protein JTB                              | 0.2382707  | 0.486573 | 0.48969  | 3  | 0.657925 | 0.5         | 0           |
| O88844 | Idh1                | Isocitrate dehydrogenase [NADP] cytop    | 0.2077252  | 0.290837 | 0.71423  | 8  | 0.495392 | 0.236111111 | 0.236111111 |
| O88845 | Akap10              | A-kinase anchor protein 10, mitochon     | -0.7955338 | 0.661751 | -1.20216 | 2  | 0.352326 | 0.6         | 0           |
| O88851 | Rbbp9 Bog           | Putative hydrolase RBBP9 (EC 3.-.-) (    | 0.120916   | 0.299269 | 0.40404  | 8  | 0.69677  | 0.311111111 | 0.311111111 |
| O88874 | Ccnk                | Cyclin-K                                 | -0.3242464 | 0.222244 | -1.45897 | 8  | 0.182692 | 0.3625      | 0.3625      |
| O88878 | Zfand5 Za20d2 Zfp2  | AN1-type zinc finger protein 5 (Zinc fin | 0.2373257  | 0.358884 | 0.66129  | 8  | 0.52701  | 0.366666667 | 0.366666667 |
| O88879 | Apaf1               | Apoptotic protease-activating factor 1   | 0.3367696  | 0.244728 | 1.3761   | 3  | 0.262522 | 0.7         | 0.2         |
| O88892 | Serf1               | Small EDRK-rich factor 1 (Protein 4F5)   | 1.9497964  | 1.724273 | 1.13079  | 1  | 0.460972 | 0.7         | 0           |
| O88895 | Hdac3               | Histone deacetylase 3 (HD3) (EC 3.5.1    | -0.2543474 | 0.318576 | -0.79839 | 6  | 0.455076 | 0.6         | 0.4         |
| Q5F1Z8 | Gm2a                | Gm2a protein                             | 0.874835   | 0.22989  | 3.80546  | 8  | 0.005196 | 0.433333333 | 0.433333333 |
| O88952 | Lin7c Mals3 Veli3   | Protein lin-7 homolog C (Lin-7C) (mLin   | 0.316182   | 0.240265 | 1.31597  | 8  | 0.22464  | 0.27        | 0.27        |
| O88958 | Gnpda1 Gnpi         | Glucosamine-6-phosphate isomerase (      | 0.2399735  | 0.344647 | 0.69629  | 7  | 0.508701 | 0.575       | 0.475       |
| O88967 | Yme1l1              | ATP-dependent zinc metalloprotease Y     | 0.7220862  | 0.664646 | 1.08642  | 5  | 0.32687  | 0.7         | 0.4         |
| O88974 | Setdb1 Eset Kiaa001 | Histone-lysine N-methyltransferase SE    | 0.2683466  | 0.360328 | 0.74473  | 8  | 0.47774  | 0.5375      | 0.5375      |
| O88983 | Stx8                | Syntaxin-8 (Syntaxin-like protein 3I35]  | -0.043729  | 0.696319 | -0.0628  | 7  | 0.951681 | 0.35        | 0.25        |
| O88986 | Gcat Kbl            | 2-amino-3-ketobutyrate coenzyme A li     | -0.006832  | 0.192769 | -0.03544 | 8  | 0.972596 | 0.484615385 | 0.484615385 |
| O89001 | Cpd                 | Carboxypeptidase D (EC 3.4.17.22) (P     | 0.0333011  | 0.212453 | 0.15675  | 8  | 0.879329 | 0.566666667 | 0.566666667 |
| O89017 | Lgmn Prsc1          | Legumain (EC 3.4.22.34) (Protease, cy    | 0.2617319  | 0.278758 | 0.93892  | 8  | 0.37525  | 0.416666667 | 0.416666667 |
| O89023 | Tpp1 Cln2           | Tripeptidyl-peptidase 1 (TPP-1) (EC 3.   | 0.6097465  | 0.746645 | 0.81665  | 8  | 0.43777  | 0.333333333 | 0.333333333 |
| O89032 | Sh3pxd2a Fish Sh3l  | SH3 and PX domain-containing protein Inf | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| O89050 | Mkln1               | Muskelin                                 | 0.0454845  | 0.190142 | 0.23921  | 8  | 0.816955 | 0.466666667 | 0.466666667 |
| O89053 | Coro1a Coro1        | Coronin-1A (Coronin-like protein A) (C   | 0.0269864  | 0.085753 | 0.3147   | 8  | 0.76104  | 0.24        | 0.24        |
| O89054 | Actb                | Cytoskeletal beta-actin                  | 0.8061389  | 0.855907 | 0.94185  | 8  | 0.373835 | 0.15        | 0.15        |
| O89079 | Cope Cope1          | Coatomer subunit epsilon (Epsilon-co     | 0.5418983  | 0.432561 | 1.25277  | 8  | 0.245668 | 0.33        | 0.33        |
| O89086 | Rbm3                | RNA-binding protein 3 (RNA-binding n     | 0.1633054  | 0.227353 | 0.71829  | 8  | 0.493019 | 0.108333333 | 0.108333333 |
| Q91WQ0 | Serpina6            | Corticosteroid-binding globulin (Serpi   | 0.8515436  | 0.289584 | 2.94058  | 5  | 0.032235 | 0.5         | 0.2         |
| O89112 | Lancl1 Gpr69a       | Glutathione S-transferase LANCL1 (EC     | 0.0532598  | 0.21199  | 0.25124  | 8  | 0.807963 | 0.333333333 | 0.333333333 |

|          |                    |                                         |            |          |          |    |          |             |             |
|----------|--------------------|-----------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| P00375   | Dhfr               | Dihydrofolate reductase (EC 1.5.1.3)    | -0.2072937 | 0.222855 | -0.93017 | 8  | 0.379495 | 0.253846154 | 0.253846154 |
| P00405   | Mtco2 COII COX2 m  | Cytochrome c oxidase subunit 2 (EC 7    | -0.188867  | 0.548556 | -0.3443  | 8  | 0.739497 | 0.233333333 | 0.233333333 |
| P00493   | Hprt1 Hprt         | Hypoxanthine-guanine phosphoribosy      | 0.1316606  | 0.238884 | 0.55115  | 8  | 0.596585 | 0.3         | 0.3         |
| P00520   | Abl1 Abl           | Tyrosine-protein kinase ABL1 (EC 2.7.1  | -0.1041687 | 0.931729 | -0.1118  | 5  | 0.91533  | 0.3         | 0           |
| O35639   | Anxa3 Anx3         | Annexin A3 (35-alpha calcimedini) (Anr  | 0.8422235  | 0.360944 | 2.33339  | 8  | 0.047907 | 0.575       | 0.575       |
| P02088   | Hbb-b1             | Hemoglobin subunit beta-1 (Beta-1-gl    | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| P02463   | Col4a1             | Collagen alpha-1(IV) chain [Cleaved int | 0.052862   | 0.634561 | 0.0833   | 8  | 0.935656 | 0.371428571 | 0.371428571 |
| P02469   | Lamb1 Lamb-1 LamI  | Laminin subunit beta-1 (Laminin B1 ch   | 0.0542356  | 0.433532 | 0.1251   | 8  | 0.90353  | 0.5125      | 0.5125      |
| P02772   | Afp                | Alpha-fetoprotein (Alpha-1-fetoprotein  | 0.4647079  | 0.350529 | 1.32573  | 8  | 0.221532 | 0.223333333 | 0.223333333 |
| P03911   | Mtnd4 mt-Nd4 Nd4   | NADH-ubiquinone oxidoreductase cha      | -0.6714109 | 0.47153  | -1.4239  | 5  | 0.213773 | 0.6         | 0.3         |
| P03930   | Mtstp8 Atp8 mt-Atp | ATP synthase protein 8 (A6L) (F-ATPas   | -0.2917537 | 0.332855 | -0.87652 | 8  | 0.406297 | 0.1         | 0.1         |
| P03958   | Ada                | Adenosine deaminase (EC 3.5.4.4) (Ad    | 0.2437755  | 0.31055  | 0.78498  | 8  | 0.455081 | 0.266666667 | 0.266666667 |
| P04184   | Tk1 Tk-1           | Thymidine kinase, cytosolic (EC 2.7.1.2 | 0.019792   | 0.365451 | 0.05416  | 8  | 0.958138 | 0.52        | 0.52        |
| P04627   | Araf A-raf Araf1   | Serine/threonine-protein kinase A-Raf   | -0.3459083 | 0.228027 | -1.51696 | 7  | 0.173062 | 0.55        | 0.45        |
| P04919   | Slc4a1 Ae1         | Band 3 anion transport protein (Anion   | -0.3076514 | 0.313853 | -0.98024 | 8  | 0.355677 | 0.3         | 0.3         |
| P04925   | Prnp Prn-p Prp     | Major prion protein (PrP) (PrP27-30) (  | 0.3044356  | 0.259871 | 1.17149  | 3  | 0.32598  | 0.5         | 0           |
| P05063   | Aldoc Aldo3 Scrg2  | Fructose-bisphosphate aldolase C (EC    | -0.6535965 | 0.446938 | -1.46239 | 8  | 0.181779 | 0.270833333 | 0.270833333 |
| P05064   | Aldoa Aldo1        | Fructose-bisphosphate aldolase A (EC    | 0.4556153  | 0.298692 | 1.52537  | 8  | 0.165678 | 0.244186047 | 0.244186047 |
| P05132   | Prkaca Pkaca       | cAMP-dependent protein kinase cataly    | -0.3207245 | 0.224525 | -1.42846 | 8  | 0.191016 | 0.266666667 | 0.266666667 |
| P05201   | Got1               | Aspartate aminotransferase, cytoplasm   | 0.049529   | 0.144076 | 0.34377  | 8  | 0.739881 | 0.276       | 0.276       |
| P05202   | Got2 Got-2         | Aspartate aminotransferase, mitochond   | 0.0661018  | 0.184949 | 0.35741  | 8  | 0.730034 | 0.270588235 | 0.270588235 |
| P05213   | Tuba1b Tuba2       | Tubulin alpha-1B chain (EC 3.6.5.-) (Al | -0.4044568 | 0.397282 | -1.01806 | 8  | 0.338447 | 0           | 0           |
| P05480-1 | Src                | Proto-oncogene tyrosine-protein kinas   | -0.0778127 | 0.133346 | -0.58354 | 8  | 0.575609 | 0.323076923 | 0.323076923 |
| P05977   | Myl1 Mylf          | Myosin light chain 1/3, skeletal muscle | 0.2342104  | 0.361654 | 0.64761  | 7  | 0.53789  | 0.3         | 0.2         |
| P06151   | Ldha Ldh-1 Ldh1    | L-lactate dehydrogenase A chain (LDH-   | -0.0229602 | 0.136834 | -0.1678  | 8  | 0.870907 | 0.2         | 0.2         |
| P06467   | Hbz Hba-x Hbz1     | Hemoglobin subunit zeta (Alpha-like ei  | 0.4570045  | 0.652913 | 0.69995  | 8  | 0.503802 | 0.162962963 | 0.162962963 |
| P06728   | Apoa4              | Apolipoprotein A-IV (Apo-AIV) (ApoA-I   | 0.4945749  | 0.239694 | 2.06336  | 8  | 0.072978 | 0.382352941 | 0.382352941 |
| P06745   | Gpi Gpi1           | Glucose-6-phosphate isomerase (GPI)     | -0.0233764 | 0.134086 | -0.17434 | 8  | 0.865931 | 0.24        | 0.24        |
| P06797   | Ctsl Ctsl1         | Procathepsin L (EC 3.4.22.15) (Cathep   | 0.1419243  | 0.505861 | 0.28056  | 3  | 0.797283 | 0.6         | 0.1         |
| P06837   | Gap43 Basp2        | Neuromodulin (Axonal membrane prot      | 0.3297972  | 0.360816 | 0.91403  | 8  | 0.387419 | 0.229411765 | 0.229411765 |
| P07309   | Ttr                | Transthyretin (Prealbumin)              | 0.1247156  | 0.280247 | 0.44502  | 8  | 0.6681   | 0.2125      | 0.2125      |
| P07310   | Ckm Ckmm           | Creatine kinase M-type (EC 2.7.3.2) (C  | 0.3980416  | 0.468433 | 0.84973  | 8  | 0.420176 | 0.25        | 0.25        |
| P07356   | Anxa2 Anx2 Cal1h   | Annexin A2 (Annexin II) (Annexin-2) (C  | 0.3297108  | 0.3564   | 0.92511  | 8  | 0.381965 | 0.342105263 | 0.342105263 |
| P07607   | Tyms               | Thymidylate synthase (TS) (TSase) (EC   | 0.0666825  | 0.212688 | 0.31352  | 8  | 0.761902 | 0.370588235 | 0.370588235 |
| P00920   | Ca2 Car2           | Carbonic anhydrase 2 (EC 4.2.1.1) (Ca   | 0.841138   | 0.303583 | 2.7707   | 8  | 0.02427  | 0.336363636 | 0.336363636 |
| P07742   | Rrm1               | Ribonucleoside-diphosphate reductas     | 0.0784845  | 0.087158 | 0.90048  | 8  | 0.394163 | 0.256666667 | 0.256666667 |
| P07901   | Hsp90aa1 Hsp86 H   | Heat shock protein HSP 90-alpha (EC     | 0.5470809  | 0.726252 | 0.75329  | 8  | 0.472858 | 0.25        | 0.25        |
| P08003   | Pdia4 Cai Erp72    | Protein disulfide-isomerase A4 (EC 5.3  | 0.2370146  | 0.240036 | 0.98741  | 8  | 0.352359 | 0.251282051 | 0.251282051 |

|          |                    |                                                   |            |          |          |   |          |             |             |
|----------|--------------------|---------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P08030   | Aprt               | Adenine phosphoribosyltransferase (A              | 0.2233516  | 0.213379 | 1.04674  | 8 | 0.325814 | 0.314285714 | 0.314285714 |
| P08113   | Hsp90b1 Grp94 Hs   | Endoplasmic (94 kDa glucose-regulate              | 0.3085084  | 0.141155 | 2.1856   | 8 | 0.060334 | 0.252777778 | 0.252777778 |
| P08122   | Col4a2             | Collagen alpha-2(IV) chain [Cleaved int           | -0.3369969 | 0.237435 | -1.41932 | 8 | 0.193573 | 0.28        | 0.28        |
| P08226   | Apoe               | Apolipoprotein E (Apo-E)                          | 0.7062278  | 0.578398 | 1.22101  | 8 | 0.256845 | 0.47        | 0.47        |
| P08228   | Sod1               | Superoxide dismutase [Cu-Zn] (EC 1.1              | 0.0919778  | 0.223901 | 0.4108   | 8 | 0.692004 | 0.126666667 | 0.126666667 |
| P08249   | Mdh2 Mor1          | Malate dehydrogenase, mitochondrial (             | 0.1020091  | 0.177067 | 0.57611  | 8 | 0.580385 | 0.209677419 | 0.209677419 |
| P08551   | Nefl Nf68 Nfl      | Neurofilament light polypeptide (NF-L)            | 0.1152633  | 0.021229 | 5.42955  | 1 | 0.115951 | 0.7         | 0           |
| P08553   | Nefm Nef3 Nfm      | Neurofilament medium polypeptide (N               | 0.6981665  | 0.34467  | 2.02561  | 8 | 0.077382 | 0.5         | 0.5         |
| P08556   | Nras               | GTPase NRas (EC 3.6.5.2) (Transformin             | -0.2489923 | 0.135512 | -1.83742 | 7 | 0.108755 | 0.4         | 0.3         |
| P08752   | Gnai2 Gnai-2       | Guanine nucleotide-binding protein G <sub>i</sub> | 0.2605409  | 0.321689 | 0.80991  | 8 | 0.441412 | 0.163157895 | 0.163157895 |
| P08775   | Polr2a Rpii215 Rpo | DNA-directed RNA polymerase II subun              | -0.0390101 | 0.17596  | -0.2217  | 8 | 0.830103 | 0.372727273 | 0.372727273 |
| P09055   | Itgb1              | Integrin beta-1 (Fibronectin receptor s           | -0.0572215 | 0.125768 | -0.45498 | 8 | 0.661218 | 0.341666667 | 0.341666667 |
| P09103   | P4hb Pdial         | Protein disulfide-isomerase (PDI) (EC             | 0.266585   | 0.148426 | 1.79609  | 8 | 0.11021  | 0.23125     | 0.23125     |
| P09242   | Alpl Akp-2 Akp2    | Alkaline phosphatase, tissue-nonspeci             | -0.2339935 | 0.333952 | -0.70068 | 5 | 0.514759 | 0.65        | 0.35        |
| P09405   | Ncl Nuc            | Nucleolin (Protein C23)                           | 0.8020454  | 0.908544 | 0.88278  | 8 | 0.403101 | 0.375       | 0.375       |
| P09411   | Pgk1 Pgk-1         | Phosphoglycerate kinase 1 (EC 2.7.2.3             | -0.0527231 | 0.056621 | -0.93116 | 8 | 0.379013 | 0.166666667 | 0.166666667 |
| P09528   | Fth1 Fth           | Ferritin heavy chain (Ferritin H subunit          | 0.0502096  | 0.235996 | 0.21276  | 8 | 0.836838 | 0.226315789 | 0.226315789 |
| P09602   | Hmgn2 Hmg-17 Hm    | Non-histone chromosomal protein HM                | -0.0930635 | 0.93185  | -0.09987 | 8 | 0.922905 | 0.346153846 | 0.346153846 |
| P09671   | Sod2 Sod-2         | Superoxide dismutase [Mn], mitochond              | 0.1384881  | 0.217067 | 0.638    | 8 | 0.541302 | 0.177777778 | 0.177777778 |
| P09925   | Surf1 Surf-1       | Surfeit locus protein 1                           | -0.3843484 | 0.327947 | -1.17198 | 1 | 0.449696 | 0.7         | 0           |
| P09926   | Surf2 Surf-2       | Surfeit locus protein 2 (Surf-2)                  | -0.0324405 | 0.440088 | -0.07371 | 7 | 0.9433   | 0.575       | 0.475       |
| P0C028   | Nudt11 Dipp3b MN   | Diphosphoinositol polyphosphate ph                | 0.1129415  | 0.280214 | 0.40305  | 8 | 0.697465 | 0.32        | 0.32        |
| P0C192   | Lrrc4b Lrig4       | Leucine-rich repeat-containing protein            | -0.0393378 | 0.236805 | -0.16612 | 8 | 0.872185 | 0.366666667 | 0.366666667 |
| P0C7N9   | Psmg4 Pac4         | Proteasome assembly chaperone 4 (PA               | -0.1604347 | 0.439027 | -0.36543 | 7 | 0.725581 | 0.466666667 | 0.366666667 |
| P0CG14   | Derpc              | Decreased expression in renal and pro             | -0.6269774 | 0.11832  | -5.29898 | 1 | 0.118744 | 0.7         | 0           |
| P0CL69   | Znf703 Zeppo1 Zfp  | Zinc finger protein 703 (Zinc finger elb          | 0.1348581  | 0.394729 | 0.34165  | 1 | 0.790416 | 0.7         | 0           |
| P0DP28   | Caln3 Cam3 Camc    | Calmodulin-3                                      | 0.287611   | 0.64176  | 0.44816  | 8 | 0.665927 | 0.204       | 0.204       |
| P0DW87   | Zftraf1 Chrp Cyhr1 | Zinc finger TRAF-type-containing prote            | -0.1844762 | 0.134378 | -1.37282 | 7 | 0.212172 | 0.3         | 0.2         |
| P10126   | Eef1a1 Eef1a       | Elongation factor 1-alpha 1 (EF-1-alph            | 0.2502308  | 0.302689 | 0.82669  | 8 | 0.432374 | 0.06        | 0.06        |
| P10493   | Nid1 Ent           | Nidogen-1 (NID-1) (Entactin)                      | 0.0496885  | 0.169196 | 0.29367  | 5 | 0.780807 | 0.633333333 | 0.333333333 |
| P10518   | Alad Lv            | Delta-aminolevulinic acid dehydratase             | 0.310124   | 0.185141 | 1.67507  | 8 | 0.132452 | 0.36875     | 0.36875     |
| P10605   | Ctsb               | Cathepsin B (EC 3.4.22.1) (Cathepsin              | 0.1013906  | 0.111158 | 0.91213  | 8 | 0.388359 | 0.09        | 0.09        |
| P10630   | Eif4a2 Ddx2b       | Eukaryotic initiation factor 4A-II (eIF-4         | -0.0079149 | 0.146221 | -0.05413 | 8 | 0.958159 | 0.254545455 | 0.254545455 |
| P10637-4 | Mapt Mtapt Tau     | Microtubule-associated protein tau (N             | 0.5618139  | 0.405777 | 1.38454  | 8 | 0.203584 | 0.26        | 0.26        |
| P10639   | Txn Txn1           | Thioredoxin (Trx) (ATL-derived factor)            | -0.0291022 | 0.267762 | -0.10869 | 8 | 0.916127 | 0.18        | 0.18        |
| P10649   | Gstm1              | Glutathione S-transferase Mu 1 (EC 2.             | -0.069375  | 0.306094 | -0.22665 | 6 | 0.828223 | 0.566666667 | 0.366666667 |
| P10711   | Tcea1 Tceat        | Transcription elongation factor A prote           | 0.5018444  | 0.257328 | 1.95021  | 8 | 0.086964 | 0.275       | 0.275       |
| P10852   | Slc3a2 Mdu1        | Amino acid transporter heavy chain SL             | 0.1693001  | 0.207098 | 0.81749  | 8 | 0.437317 | 0.305555556 | 0.305555556 |

|        |                     |                                         |            |          |          |   |          |             |             |
|--------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P10922 | H1-0 H1f0 H1fv      | Histone H1.0 (Histone H1') (Histone H1) | 1.3869253  | 1.073781 | 1.29163  | 8 | 0.232551 | 0.33        | 0.33        |
| P11031 | Sub1 Pc4 Rpo2tc1    | Activated RNA polymerase II transcripti | 0.2303811  | 0.27319  | 0.8433   | 8 | 0.423556 | 0.275       | 0.275       |
| P11087 | Col1a1 Cola1        | Collagen alpha-1(I) chain (Alpha-1 typ  | -0.210248  | 1.018203 | -0.20649 | 7 | 0.842286 | 0.5         | 0.4         |
| P11157 | Rrm2                | Ribonucleoside-diphosphate reductas     | -0.0505255 | 0.111102 | -0.45477 | 8 | 0.661364 | 0.247368421 | 0.247368421 |
| P11276 | Fn1                 | Fibronectin (FN) [Cleaved into: Anasel  | -1.0898693 | 0.24224  | -4.49912 | 1 | 0.139235 | 0.7         | 0           |
| P11352 | Gpx1                | Glutathione peroxidase 1 (GPx-1) (GSI   | 0.1888115  | 0.1898   | 0.99479  | 8 | 0.348971 | 0.35        | 0.35        |
| P11440 | Cdk1 Cdc2 Cdc2a C   | Cyclin-dependent kinase 1 (CDK1) (EC    | 0.0417665  | 0.130021 | 0.32123  | 8 | 0.756269 | 0.239130435 | 0.239130435 |
| P11499 | Hsp90ab1 Hsp84 H    | Heat shock protein HSP 90-beta (Heat    | 0.0904638  | 0.14765  | 0.61269  | 8 | 0.557092 | 0.183333333 | 0.183333333 |
| P11798 | Camk2a              | Calcium/calmodulin-dependent protei     | -0.0461017 | 0.333162 | -0.13838 | 3 | 0.898709 | 0.55        | 0.05        |
| P11881 | Itpr1 Insp3r Pcd6 P | Inositol 1,4,5-trisphosphate-gated calc | -0.7487473 | 0.65958  | -1.13519 | 3 | 0.338788 | 0.5         | 0           |
| P11983 | Tcp1 Cct1 Ccta      | T-complex protein 1 subunit alpha (TC   | 0.1673967  | 0.17067  | 0.98082  | 8 | 0.355408 | 0.212307692 | 0.212307692 |
| P12023 | App A4 AD1          | Amyloid-beta precursor protein (ABPP    | 0.0329007  | 0.25537  | 0.12884  | 8 | 0.900668 | 0.36        | 0.36        |
| P12025 | Mdk Mk              | Midkine (MK) (Retanoic acid-responsiv   | -0.1611731 | 0.167963 | -0.95958 | 8 | 0.365367 | 0.185714286 | 0.185714286 |
| P12382 | Pfkl Pfk-l Pfkfb    | ATP-dependent 6-phosphofructokinase     | -0.1171591 | 0.16498  | -0.71014 | 8 | 0.497792 | 0.282142857 | 0.282142857 |
| P12658 | Calb1               | Calbindin (Calbindin D28) (D-28K) (P    | 0.894218   | 0.766671 | 1.16637  | 6 | 0.287726 | 0.35        | 0.15        |
| P12787 | Cox5a               | Cytochrome c oxidase subunit 5A, mit    | 0.5923271  | 0.330837 | 1.79039  | 8 | 0.111173 | 0.22        | 0.22        |
| P12815 | Pdcd6 Alg2          | Programmed cell death protein 6 (ALG-   | -0.0127945 | 0.270121 | -0.04737 | 8 | 0.963383 | 0.363636364 | 0.363636364 |
| P12970 | Rpl7a Surf-3 Surf3  | Large ribosomal subunit protein eL8 (E  | 0.0484989  | 0.431391 | 0.11242  | 8 | 0.913257 | 0.189655172 | 0.189655172 |
| P13011 | Scd2                | Stearoyl-CoA desaturase 2 (EC 1.14.14   | -0.1679182 | 0.501569 | -0.33479 | 6 | 0.74918  | 0.4         | 0.2         |
| P13439 | Umps                | Uridine 5'-monophosphate synthase (     | 0.2983928  | 0.180109 | 1.65674  | 8 | 0.136163 | 0.253333333 | 0.253333333 |
| P13864 | Dnmt1 Dnmt Met1     | DNA (cytosine-5)-methyltransferase 1    | 0.0108534  | 0.230537 | 0.04708  | 4 | 0.964707 | 0.7         | 0.3         |
| P14115 | Rpl27a              | Large ribosomal subunit protein uL15    | -0.1629077 | 0.193762 | -0.84076 | 8 | 0.424897 | 0.2         | 0.2         |
| P14131 | Rps16               | Small ribosomal subunit protein uS9 (   | -0.0126915 | 0.397076 | -0.03196 | 8 | 0.975285 | 0.223529412 | 0.223529412 |
| P14148 | Rpl7                | Large ribosomal subunit protein uL30    | 0.1248856  | 0.438319 | 0.28492  | 8 | 0.782943 | 0.2125      | 0.2125      |
| P14152 | Mdh1 Mor2           | Malate dehydrogenase, cytoplasmic (E    | 0.042655   | 0.111003 | 0.38427  | 8 | 0.710793 | 0.325925926 | 0.325925926 |
| P14206 | Rpsa Lamr1 P40-8    | Small ribosomal subunit protein uS2 (   | 0.0119091  | 0.095486 | 0.12472  | 8 | 0.903822 | 0.127586207 | 0.127586207 |
| P14211 | Calr                | Calreticulin (CRP55) (Calregulin) (End  | 0.0233178  | 0.103603 | 0.22507  | 8 | 0.827569 | 0.192307692 | 0.192307692 |
| P14231 | Atp1b2              | Sodium/potassium-transporting ATPase    | 0.1512245  | 0.191796 | 0.78847  | 1 | 0.574949 | 0.7         | 0           |
| P14576 | Srp54               | Signal recognition particle subunit SRF | -0.560491  | 0.282203 | -1.98613 | 8 | 0.082264 | 0.325       | 0.325       |
| P14685 | Psmd3 P91a Tstap9   | 26S proteasome non-ATPase regulator     | 0.0111637  | 0.153012 | 0.07296  | 8 | 0.94363  | 0.264705882 | 0.264705882 |
| P14733 | Lmnb1               | Lamin-B1                                | 0.227868   | 0.176672 | 1.28978  | 8 | 0.23316  | 0.222727273 | 0.222727273 |
| P14824 | Anxa6 Anx6          | Annexin A6 (67 kDa calelectrin) (Anne   | 0.1790744  | 0.216225 | 0.82819  | 8 | 0.431577 | 0.322222222 | 0.322222222 |
| P14869 | Rplp0 Arbp          | Large ribosomal subunit protein uL10    | 0.1574874  | 0.153462 | 1.02623  | 8 | 0.33481  | 0.208       | 0.208       |
| P14873 | Map1b Mtap1b Mtap   | Microtubule-associated protein 1B (MA   | 0.1599438  | 0.127469 | 1.25476  | 8 | 0.24498  | 0.167484663 | 0.167484663 |
| P14901 | Hmox1               | Heme oxygenase 1 (HO-1) (EC 1.14.14     | -0.3433636 | 0.245094 | -1.40095 | 7 | 0.20397  | 0.566666667 | 0.466666667 |
| P15105 | Glul Glns           | Glutamine synthetase (GS) (EC 6.3.1.2   | 0.4057031  | 0.42123  | 0.96314  | 8 | 0.363683 | 0.533333333 | 0.533333333 |
| P15116 | Cdh2                | Cadherin-2 (Neural cadherin) (N-cadhe   | -0.0099939 | 0.186687 | -0.05353 | 8 | 0.95862  | 0.259375    | 0.259375    |
| P15208 | Insr                | Insulin receptor (IR) (EC 2.7.10.1) (CD | -0.0302217 | 0.362151 | -0.08345 | 6 | 0.936208 | 0.566666667 | 0.366666667 |

|            |                    |                                            |            |          |          |   |          |             |             |
|------------|--------------------|--------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P15327     | Bpgm               | Bisphosphoglycerate mutase (BPGM) (        | 0.3466325  | 0.542056 | 0.63948  | 8 | 0.540388 | 0.366666667 | 0.366666667 |
| P15532     | Nme1 Nm23          | Nucleoside diphosphate kinase A (NDK       | -0.0711661 | 0.196169 | -0.36278 | 8 | 0.726167 | 0.133333333 | 0.133333333 |
| P15806     | Tcf3 Alf2 Me2 Tcf2 | Transcription factor E2-alpha (Immunc      | -1.0282849 | 1.661595 | -0.61885 | 1 | 0.647206 | 0.7         | 0           |
| P15864     | H1-2 H1f2 Hist1h1  | Histone H1.2 (H1 VAR.1) (H1c)              | -0.5874602 | 0.621526 | -0.94519 | 8 | 0.37223  | 0.3375      | 0.3375      |
| P16045     | Lgals1 Gbp         | Galectin-1 (Gal-1) (14 kDa lectin) (Bet    | -0.037597  | 0.243032 | -0.1547  | 8 | 0.88089  | 0.075       | 0.075       |
| P16125     | Ldhd Ldh-2 Ldh2    | L-lactate dehydrogenase B chain (LDH-      | 0.2266284  | 0.101059 | 2.24255  | 8 | 0.055206 | 0.211428571 | 0.211428571 |
| P16254     | Srp14              | Signal recognition particle 14 kDa prot    | 0.8351878  | 0.77856  | 1.07273  | 8 | 0.31468  | 0.32        | 0.32        |
| A0A2R8VKI7 | Tfcp2              | Transcription factor CP2                   | 0.8370231  | 0.289013 | 2.89614  | 8 | 0.02001  | 0.3         | 0.3         |
| P16858     | Gapdh Gapd         | Glyceraldehyde-3-phosphate dehydrog        | 0.089563   | 0.204237 | 0.43852  | 8 | 0.672607 | 0.232894737 | 0.232894737 |
| P17095-1   | Hmga1 Hmgi Hmgij   | High mobility group protein HMG-I/HM       | 1.0392006  | 0.798148 | 1.30201  | 8 | 0.229147 | 0.333333333 | 0.333333333 |
| P17095     | Hmga1 Hmgi Hmgij   | High mobility group protein HMG-I/HM       | 0.2626633  | 0.460092 | 0.57089  | 8 | 0.583749 | 0.233333333 | 0.233333333 |
| P17141     | Zfp37 Zfp-37       | Zinc finger protein 37 (Zfp-37) (Male g    | 0.2255291  | 0.405451 | 0.55624  | 8 | 0.593258 | 0.5         | 0.5         |
| P17182     | Eno1 Eno-1         | Alpha-enolase (EC 4.2.1.11) (2-phosp       | 0.2115352  | 0.329722 | 0.64156  | 8 | 0.539104 | 0.240350877 | 0.240350877 |
| P17225-2   | Ptbp1 Ptb          | Polypyrimidine tract-binding protein 1     | 0.1061473  | 0.528435 | 0.20087  | 8 | 0.845812 | 0.3         | 0.3         |
| P17426-2   | Ap2a1 Adta Clap1   | AP-2 complex subunit alpha-1 (100 kD       | 0.0879298  | 0.137558 | 0.63922  | 8 | 0.540548 | 0.3875      | 0.3875      |
| P17427     | Ap2a2 Adtab        | AP-2 complex subunit alpha-2 (100 kD       | 0.0877137  | 0.180573 | 0.48575  | 8 | 0.640168 | 0.270967742 | 0.270967742 |
| P17439     | Gba1 Gba           | Lysosomal acid glucosylceramidase (Ly      | 0.0150639  | 0.192788 | 0.07814  | 6 | 0.94026  | 0.633333333 | 0.433333333 |
| P17710     | Hk1                | Hexokinase-1 (EC 2.7.1.1) (Hexokinas       | 0.2110895  | 0.154934 | 1.36245  | 8 | 0.210172 | 0.322222222 | 0.322222222 |
| P17742     | Ppia               | Peptidyl-prolyl cis-trans isomerase A (P   | -0.0008615 | 0.227079 | -0.00379 | 8 | 0.997066 | 0.187755102 | 0.187755102 |
| P17751     | Tpi1 Tpi           | Triosephosphate isomerase (TIM) (EC 5      | 0.1688638  | 0.159884 | 1.05617  | 8 | 0.321741 | 0.151515152 | 0.151515152 |
| P17809     | Slc2a1 Glut1       | Solute carrier family 2, facilitated gluco | 0.3271309  | 0.434647 | 0.75264  | 8 | 0.473231 | 0.385714286 | 0.385714286 |
| P17918     | Pcna               | Proliferating cell nuclear antigen (PCNA   | -0.1149581 | 0.266973 | -0.4306  | 8 | 0.678127 | 0.114285714 | 0.114285714 |
| P18242     | Ctsd               | Cathepsin D (EC 3.4.23.5)                  | 0.189459   | 0.153186 | 1.23679  | 8 | 0.25124  | 0.257142857 | 0.257142857 |
| P18572     | Bsg                | Basigin (Basic immunoglobulin superfa      | -0.1934576 | 0.232581 | -0.83179 | 8 | 0.429657 | 0.27        | 0.27        |
| P18608     | Hmgn1 Hmg-14 Hm    | Non-histone chromosomal protein HM         | -0.1656878 | 0.316315 | -0.52381 | 8 | 0.614611 | 0.36        | 0.36        |
| P18654     | Rps6ka3 Mapkapk1   | Ribosomal protein S6 kinase alpha-3 (R     | 0.0384281  | 0.135259 | 0.28411  | 8 | 0.783542 | 0.472727273 | 0.472727273 |
| P18760     | Cfl1               | Cofilin-1 (Cofilin, non-muscle isoform     | 0.3647094  | 0.252911 | 1.44205  | 8 | 0.187268 | 0.283333333 | 0.283333333 |
| P18872-2   | Gnao1 Gna0 Gnao    | Guanine nucleotide-binding protein G       | 0.041514   | 0.651264 | 0.06374  | 7 | 0.950956 | 0.1         | 0           |
| P19096     | Fasn               | Fatty acid synthase (EC 2.3.1.85) (Type    | -0.0332173 | 0.139018 | -0.23894 | 8 | 0.817158 | 0.226627219 | 0.226627219 |
| P19137     | Lama1 Lama Lama-1  | Laminin subunit alpha-1 (Laminin A ch      | -0.6708247 | 0.548692 | -1.22259 | 5 | 0.275966 | 0.533333333 | 0.233333333 |
| Q8K298     | Anln               | Anillin                                    | 0.8351047  | 0.316304 | 2.6402   | 5 | 0.045965 | 0.666666667 | 0.366666667 |
| P19182     | Ifrd1 Tis7         | Interferon-related developmental regul     | 1.5506569  | 1.389901 | 1.11566  | 5 | 0.315297 | 0.3         | 0           |
| P19253     | Rpl13a P198 Tstap1 | Large ribosomal subunit protein uL13       | -0.0164134 | 0.378301 | -0.04339 | 8 | 0.966456 | 0.309090909 | 0.309090909 |
| P19324     | Serpinh1 Cbp1 Hsp  | Serpin H1 (47 kDa heat shock protein)      | -0.1031888 | 0.252371 | -0.40888 | 8 | 0.693356 | 0.195238095 | 0.195238095 |
| P19426     | Nelfe D17h6s45 Rd  | Negative elongation factor E (NELF-E) (    | -0.1801103 | 0.124278 | -1.44925 | 8 | 0.185307 | 0.366666667 | 0.366666667 |
| P19536     | Cox5b              | Cytochrome c oxidase subunit 5B, mit       | 0.0795991  | 0.379903 | 0.20952  | 8 | 0.839276 | 0.342857143 | 0.342857143 |
| P19783     | Cox4i1 Cox4 Cox4   | Cytochrome c oxidase subunit 4 isofo       | 0.3071318  | 0.203418 | 1.50986  | 8 | 0.16952  | 0.269230769 | 0.269230769 |
| P20029     | Hspa5 Grp78        | Endoplasmic reticulum chaperone BiP        | 0.1121266  | 0.319125 | 0.35136  | 8 | 0.734395 | 0.2359375   | 0.2359375   |

|          |                      |                                          |            |          |          |   |          |             |             |
|----------|----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P20065-2 | Tmsb4x Ptmb4 Tms     | Thymosin beta-4 (T beta 4) [Cleaved in   | 0.2450573  | 0.629806 | 0.3891   | 8 | 0.707355 | 0.4         | 0.4         |
| P20108   | Prdx3 Aop1 Mer5      | Thioredoxin-dependent peroxide reductase | 0.2524123  | 0.148631 | 1.69824  | 8 | 0.127892 | 0.323076923 | 0.323076923 |
| P20152   | Vim                  | Vimentin                                 | 0.1312151  | 0.19463  | 0.67418  | 8 | 0.5192   | 0.18255814  | 0.18255814  |
| P20357   | Map2 Mtap2           | Microtubule-associated protein 2 (MAF)   | 0.3845052  | 0.2305   | 1.66814  | 8 | 0.133843 | 0.279411765 | 0.279411765 |
| P20664   | Prim1                | DNA primase small subunit (EC 2.7.7.1)   | -0.616622  | 0.303415 | -2.03228 | 8 | 0.076586 | 0.557142857 | 0.557142857 |
| P21107-2 | Tpm3 Tpm-5 Tpm5      | Tropomyosin alpha-3 chain (Gamma-t)      | 0.3871816  | 0.451718 | 0.85713  | 8 | 0.416308 | 0.223076923 | 0.223076923 |
| P21126   | Ubl4a Gdx Ubl4       | Ubiquitin-like protein 4A (Ubiquitin-lik | 0.3987474  | 0.324721 | 1.22797  | 8 | 0.254359 | 0.328571429 | 0.328571429 |
| P21278   | Gna11 Gna-11         | Guanine nucleotide-binding protein su    | 0.1993184  | 0.396608 | 0.50256  | 8 | 0.628815 | 0.24        | 0.24        |
| P21279   | Gnaq                 | Guanine nucleotide-binding protein Gq    | 0.2528059  | 0.174267 | 1.45068  | 8 | 0.18492  | 0.185714286 | 0.185714286 |
| P21460   | Cst3                 | Cystatin-C (Cystatin-3)                  | -0.0592783 | 0.229029 | -0.25882 | 6 | 0.804421 | 0.433333333 | 0.233333333 |
| P21614   | Gc                   | Vitamin D-binding protein (DBP) (VDB     | -0.2132618 | 0.329184 | -0.64785 | 3 | 0.563244 | 0.55        | 0.05        |
| P21619   | Lmnb2                | Lamin-B2                                 | 0.2143953  | 0.17596  | 1.21843  | 8 | 0.257769 | 0.328125    | 0.328125    |
| P22315   | Fech                 | Ferrochelatase, mitochondrial (EC 4.9.1  | 0.2207181  | 0.17202  | 1.2831   | 6 | 0.246789 | 0.566666667 | 0.366666667 |
| Q99L85   | Elp5 Derp6 Rai12     | Elongator complex protein 5 (Dermal p    | 0.82856    | 0.300703 | 2.75541  | 7 | 0.028283 | 0.525       | 0.425       |
| P22682   | Cbl                  | E3 ubiquitin-protein ligase CBL (EC 2.3  | 0.1055596  | 0.195026 | 0.54126  | 8 | 0.60307  | 0.476923077 | 0.476923077 |
| P22892   | Ap1g1 Adtg Clapg1    | AP-1 complex subunit gamma-1 (Adap       | 0.0560856  | 0.276653 | 0.20273  | 8 | 0.844408 | 0.404545455 | 0.404545455 |
| P22907   | Hmbs Uros1           | Porphobilinogen deaminase (PBG-D) (      | 0.0866912  | 0.106229 | 0.81608  | 8 | 0.438078 | 0.36        | 0.36        |
| P22935   | Crabp2               | Cellular retinoic acid-binding protein 2 | 0.4185038  | 0.198291 | 2.11055  | 8 | 0.067815 | 0.155555556 | 0.155555556 |
| P23116   | Eif3a Csma Eif3 Eif3 | Eukaryotic translation initiation factor | -0.1128518 | 0.249199 | -0.45286 | 8 | 0.66268  | 0.2578125   | 0.2578125   |
| Q99LG0   | Usp16                | Ubiquitin carboxyl-terminal hydrolase    | 0.8162409  | 0.027749 | 29.4153  | 1 | 0.021634 | 0.7         | 0           |
| Q8CI95   | Osbpl11              | Oxysterol-binding protein-related prot   | 0.8019764  | 0.20499  | 3.91228  | 7 | 0.005806 | 0.64        | 0.54        |
| P23475   | Xrcc6 G22p1 Ku70     | X-ray repair cross-complementing prot    | 0.0739137  | 0.195158 | 0.37874  | 8 | 0.714736 | 0.458333333 | 0.458333333 |
| P23492   | Pnp Np Pnp1          | Purine nucleoside phosphorylase (PNF     | 0.229204   | 0.333595 | 0.68707  | 8 | 0.511458 | 0.305882353 | 0.305882353 |
| P23506   | Pcmt1                | Protein-L-isoaspartate(D-aspartate) O-   | 0.3871698  | 0.209813 | 1.84531  | 8 | 0.10221  | 0.253846154 | 0.253846154 |
| P23591   | Gfus P35b Tsta3 Tsi  | GDP-L-fucose synthase (EC 1.1.1.271)     | -0.1319431 | 0.227905 | -0.57894 | 8 | 0.578563 | 0.3125      | 0.3125      |
| P23708   | Nfya                 | Nuclear transcription factor Y subunit   | 0.3869539  | 0.17089  | 2.26435  | 8 | 0.053359 | 0.325       | 0.325       |
| P23798   | Pcgf2 Mel-18 Mel18   | Polycomb group RING finger protein 2     | -0.5376473 | 0.152849 | -3.5175  | 1 | 0.176334 | 0.7         | 0           |
| P23950   | Zfp36l1 Brf1 Tis11b  | mRNA decay activator protein ZFP36L1     | -0.3153933 | 1.175425 | -0.26832 | 4 | 0.80172  | 0.4         | 0           |
| P24270   | Cat Cas-1 Cas1       | Catalase (EC 1.11.1.6)                   | 0.022659   | 0.094141 | 0.24069  | 8 | 0.815847 | 0.343181818 | 0.343181818 |
| P24288   | Bcat1 Eca39          | Branched-chain-amino-acid aminotran      | 0.1681673  | 0.215582 | 0.78006  | 8 | 0.457811 | 0.308333333 | 0.308333333 |
| P24369   | Ppib                 | Peptidyl-prolyl cis-trans isomerase B (F | 0.017663   | 0.16701  | 0.10576  | 8 | 0.918376 | 0.163157895 | 0.163157895 |
| P24472   | Gsta4 Gsta           | Glutathione S-transferase A4 (EC 2.5.1   | 0.1255766  | 0.508434 | 0.24699  | 8 | 0.811138 | 0.32        | 0.32        |
| P24527   | Lta4h                | Leukotriene A-4 hydrolase (LTA-4 hydr    | 0.0587274  | 0.1298   | 0.45245  | 8 | 0.662964 | 0.330434783 | 0.330434783 |
| P24638   | Acp2                 | Lysosomal acid phosphatase (LAP) (EC     | 0.0116545  | 0.19014  | 0.06129  | 8 | 0.952628 | 0.425       | 0.425       |
| P24668   | M6pr 46mpr           | Cation-dependent mannose-6-phosph        | 0.0596758  | 0.230489 | 0.25891  | 8 | 0.802242 | 0.416666667 | 0.416666667 |
| P24788   | Cdk11b Cdc2l1 Cdl    | Cyclin-dependent kinase 11B (Cell divi   | 0.4477932  | 0.425151 | 1.05326  | 8 | 0.322993 | 0.4375      | 0.4375      |
| P24860   | Ccnb1 Ccn-2 Ccnb     | G2/mitotic-specific cyclin-B1            | 0.2244183  | 0.264444 | 0.84864  | 6 | 0.428633 | 0.55        | 0.35        |
| P25206   | Mcm3 Mcmd Mcmd3      | DNA replication licensing factor MCM3    | -0.9153352 | 1.0213   | -0.89625 | 2 | 0.464702 | 0.6         | 0           |

|          |                     |                                         |            |          |          |   |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P25233   | Ndn                 | Necdin                                  | -0.0156869 | 0.31669  | -0.04953 | 8 | 0.961708 | 0.35        | 0.35        |
| P25322   | Ccnd1 Cyl-1         | G1/S-specific cyclin-D1                 | 0.2972251  | 0.311436 | 0.95437  | 4 | 0.39394  | 0.566666667 | 0.166666667 |
| P25444   | Rps2 Lrep3 Rps4     | Small ribosomal subunit protein uS5 (   | 0.3828872  | 0.256649 | 1.49187  | 6 | 0.186333 | 0.2         | 0           |
| P25976   | Ubtf Tcfubf Ubf-1 U | Nucleolar transcription factor 1 (Upstr | -0.1060107 | 0.125774 | -0.84287 | 8 | 0.423784 | 0.311111111 | 0.311111111 |
| P26039   | Tln1 Tln            | Talin-1                                 | 0.022811   | 0.206523 | 0.11045  | 8 | 0.914771 | 0.382089552 | 0.382089552 |
| P26040   | Ezr Vil2            | Ezrin (Cytovillin) (Villin-2) (p81)     | 0.2967746  | 0.326344 | 0.90939  | 8 | 0.389718 | 0.35        | 0.35        |
| P26041   | Msn                 | Moesin (Membrane-organizing extensic    | 0.3979692  | 0.37088  | 1.07304  | 8 | 0.314551 | 0.30625     | 0.30625     |
| P26043   | Rdx                 | Radixin (ESP10)                         | 0.2290007  | 0.193251 | 1.18499  | 8 | 0.270027 | 0.236       | 0.236       |
| P26231   | Ctnna1 Catna1       | Catenin alpha-1 (102 kDa cadherin-as    | 0.0678394  | 0.1742   | 0.38943  | 8 | 0.707116 | 0.323076923 | 0.323076923 |
| P26350   | Ptma                | Prothymosin alpha [Cleaved into: Protl  | 0.995749   | 0.84971  | 1.17187  | 8 | 0.274965 | 0.242857143 | 0.242857143 |
| P26369   | U2af2 U2af65        | Splicing factor U2AF 65 kDa subunit (l  | -0.0881295 | 0.091049 | -0.96794 | 8 | 0.361423 | 0.203703704 | 0.203703704 |
| P26443   | Glud1 Glud          | Glutamate dehydrogenase 1, mitochon     | 0.0564602  | 0.134568 | 0.41957  | 8 | 0.685842 | 0.284615385 | 0.284615385 |
| P26516   | Psmd7 Mov-34 Mov    | 26S proteasome non-ATPase regulator     | 0.2049916  | 0.110657 | 1.8525   | 8 | 0.101089 | 0.17        | 0.17        |
| P26638   | Sars1 Sars Sers     | Serine--tRNA ligase, cytoplasmic (EC 6  | 0.0588784  | 0.096521 | 0.61001  | 8 | 0.558782 | 0.217142857 | 0.217142857 |
| P26645   | Marcks Macs         | Myristoylated alanine-rich C-kinase su  | 0.3726139  | 0.333124 | 1.11854  | 8 | 0.295795 | 0.2         | 0.2         |
| P26883   | Fkbp1a Fkbp1        | Peptidyl-prolyl cis-trans isomerase FKE | -0.204321  | 0.195775 | -1.04365 | 8 | 0.327154 | 0.193333333 | 0.193333333 |
| P27048   | Snrpb               | Small nuclear ribonucleoprotein-assoc   | 0.0549023  | 0.263653 | 0.20824  | 8 | 0.840248 | 0.328571429 | 0.328571429 |
| Q9D8B3   | Chmp4b              | Charged multivesicular body protein 4   | 0.7895959  | 0.320701 | 2.4621   | 8 | 0.03919  | 0.22        | 0.22        |
| P27601   | Gna13 Gna-13        | Guanine nucleotide-binding protein su   | -0.3326807 | 0.547657 | -0.60746 | 8 | 0.560388 | 0.233333333 | 0.233333333 |
| P27612   | Plaa Plap           | Phospholipase A-2-activating protein (  | -0.002329  | 0.269169 | -0.00865 | 8 | 0.993308 | 0.351724138 | 0.351724138 |
| P27641   | Xrcc5 G22p2         | X-ray repair cross-complementing prot   | -0.0995942 | 0.218805 | -0.45517 | 8 | 0.661083 | 0.366666667 | 0.366666667 |
| P27659   | Rpl3                | Large ribosomal subunit protein uL3 (f  | -0.1163192 | 0.234309 | -0.49643 | 8 | 0.632939 | 0.25952381  | 0.25952381  |
| P27661   | H2ax H2a.x H2afx H  | Histone H2AX (H2a/x) (Histone H2A.X     | -0.3723886 | 0.236275 | -1.57608 | 6 | 0.166078 | 0.2         | 0           |
| P27773   | Pdia3 Erp Erp60 Grl | Protein disulfide-isomerase A3 (EC 5.3  | 0.1684554  | 0.14403  | 1.16958  | 8 | 0.275832 | 0.211111111 | 0.211111111 |
| P28184   | Mt3                 | Metallothionein-3 (MT-3) (Growth inhi   | 0.6647449  | 0.626247 | 1.06147  | 7 | 0.323718 | 0.333333333 | 0.233333333 |
| P28271   | Aco1 Ireb1 Irebp    | Cytoplasmic aconitate hydratase (Acor   | -0.0082835 | 0.103615 | -0.07994 | 8 | 0.938245 | 0.262162162 | 0.262162162 |
| P28352   | Apex1 Ape Apex Ref  | DNA repair nuclease/redox regulator Al  | -0.0815326 | 0.12532  | -0.65059 | 8 | 0.533543 | 0.154166667 | 0.154166667 |
| P28474   | Adh5 Adh-2 Adh2     | Alcohol dehydrogenase class-3 (EC 1.1   | 0.1103039  | 0.131771 | 0.83709  | 8 | 0.426839 | 0.123076923 | 0.123076923 |
| P28574-2 | Max Myn             | Protein max (Myc-associated factor X)   | 0.3027558  | 0.414553 | 0.73032  | 8 | 0.486029 | 0.333333333 | 0.333333333 |
| P28652   | Camk2b Camk2d       | Calcium/calmodulin-dependent protei     | 0.448697   | 0.230489 | 1.94671  | 2 | 0.190952 | 0.6         | 0           |
| P28656   | Nap1l1 Nrp          | Nucleosome assembly protein 1-like 1    | 0.2780745  | 0.347468 | 0.80029  | 8 | 0.446655 | 0.232       | 0.232       |
| P28658   | Atxn10 Sca10        | Ataxin-10 (Brain protein E46) (Spinoc   | 0.0871408  | 0.277364 | 0.31417  | 8 | 0.761425 | 0.261538462 | 0.261538462 |
| P28659-4 | Celf1 Bruno12 Cugb  | CUGBP Elav-like family member 1 (CEL    | 0.4281953  | 0.313115 | 1.36753  | 8 | 0.20864  | 0.236842105 | 0.236842105 |
| P28660   | Nckap1 Hem2 Kiaa0   | Nck-associated protein 1 (NAP 1) (Brai  | 0.0536519  | 0.164094 | 0.32696  | 8 | 0.752091 | 0.404761905 | 0.404761905 |
| P28663   | Napb Snapb          | Beta-soluble NSF attachment protein (   | 0.174987   | 0.256771 | 0.68149  | 4 | 0.532974 | 0.6         | 0.2         |
| P28667   | Marcksl1 Mlp Mrp    | MARCKS-related protein (Brain protein   | -0.2907131 | 0.39958  | -0.72755 | 8 | 0.487635 | 0.321428571 | 0.321428571 |
| P28738   | Kif5c Nkhc2         | Kinesin heavy chain isoform 5C (EC 3.   | 0.03842    | 0.241439 | 0.15913  | 8 | 0.877511 | 0.05        | 0.05        |
| P28740-1 | Kif2a Kif2 Kns2     | Kinesin-like protein KIF2A (Kinesin-2)  | -0.2420643 | 0.175202 | -1.38163 | 6 | 0.216329 | 0.4         | 0.2         |

|          |                     |                                          |            |          |          |    |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| P28740-2 | Kif2a Kif2 Kns2     | Kinesin-like protein KIF2A (Kinesin-2)   | 0.1235974  | 0.76255  | 0.16208  | 8  | 0.875258 | 0.1         | 0.1         |
| Q8K039   |                     | Uncharacterized protein KIAA1143 hom     | 0.7811584  | 0.120936 | 6.45925  | 2  | 0.02314  | 0.6         | 0           |
| P28798   | Grn                 | Progranulin (PGRN) (Acrogranin) (Epit    | 0.5848447  | 0.332615 | 1.75832  | 7  | 0.122101 | 0.46        | 0.36        |
| P28867   | Prkcd Pkcd          | Protein kinase C delta type (EC 2.7.11.  | 0.4058194  | 0.656061 | 0.61857  | 1  | 0.647337 | 0.7         | 0           |
| P29037   | Tbp Tfiid           | TATA-box-binding protein (TATA seque     | -0.2740655 | 0.581079 | -0.47165 | 2  | 0.683625 | 0.7         | 0.1         |
| P29319   | Epha3 Etk1 Mek4 Ty  | Ephrin type-A receptor 3 (EC 2.7.10.1)   | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| P29341   | Pabpc1 Pabp1        | Polyadenylate-binding protein 1 (PABF    | -0.0125321 | 0.129053 | -0.09711 | 8  | 0.925029 | 0.158536585 | 0.158536585 |
| P29533   | Vcam1 Vcam-1        | Vascular cell adhesion protein 1 (V-CA   | 0.1627686  | 0.136212 | 1.19496  | 4  | 0.298108 | 0.6         | 0.2         |
| P29594   | Casp2 Ich1 Nedd-2   | Caspase-2 (CASP-2) (EC 3.4.22.55) (N     | 0.2818774  | 0.51083  | 0.5518   | 8  | 0.596157 | 0.616666667 | 0.616666667 |
| P29595   | Nedd8 Nedd-8        | NEDD8 (Neddylin) (Neural precursor c     | 0.854586   | 0.395419 | 2.16122  | 7  | 0.067486 | 0.366666667 | 0.266666667 |
| P29699   | Ahsg Fetua          | Alpha-2-HS-glycoprotein (Countertryp     | 0.961248   | 0.749826 | 1.28196  | 5  | 0.256078 | 0.625       | 0.325       |
| P29758   | Oat                 | Ornithine aminotransferase, mitochon     | -0.3975758 | 0.382903 | -1.03832 | 3  | 0.375459 | 0.5         | 0           |
| P30280   | Ccnd2 Cyl-2         | G1/S-specific cyclin-D2                  | 0.19506    | 0.657267 | 0.29677  | 3  | 0.786    | 0.575       | 0.075       |
| P30285   | Cdk4 Crk3           | Cyclin-dependent kinase 4 (EC 2.7.11.    | 0.1704891  | 0.211964 | 0.80433  | 8  | 0.444448 | 0.245454545 | 0.245454545 |
| P30416   | Fkbp4 Fkpb52        | Peptidyl-prolyl cis-trans isomerase FKE  | 0.1329081  | 0.173859 | 0.76446  | 8  | 0.466542 | 0.182608696 | 0.182608696 |
| P30658   | Cbx2 M33            | Chromobox protein homolog 2 (M33)        | 0.0095054  | 0.432934 | 0.02196  | 8  | 0.983021 | 0.355555556 | 0.355555556 |
| P30681   | Hmgb2 Hmg2          | High mobility group protein B2 (High m   | -0.0150372 | 0.32764  | -0.0459  | 8  | 0.964518 | 0.220833333 | 0.220833333 |
| P30999-3 | Ctnnd1 Ctns KiaaC   | Catenin delta-1 (Cadherin-associated     | 0.3473373  | 0.167667 | 2.07159  | 7  | 0.077035 | 0.1         | 0           |
| P31230   | Aimp1 Emap2 Scye1   | Aminoacyl tRNA synthase complex-int      | 0.1351779  | 0.260938 | 0.51805  | 8  | 0.618444 | 0.235714286 | 0.235714286 |
| P31266   | Rbpj Igkjr1 Igkrb1  | Recombining binding protein suppress     | -0.1101816 | 0.246937 | -0.44619 | 8  | 0.667288 | 0.409090909 | 0.409090909 |
| P31324   | Prkar2b             | cAMP-dependent protein kinase type II    | 0.2520017  | 0.201883 | 1.24825  | 8  | 0.247232 | 0.35        | 0.35        |
| P31360   | Pou3f2 Brn-2 Brn2   | POU domain, class 3, transcription fac   | 0.2253903  | 0.377378 | 0.59725  | 4  | 0.582503 | 0.65        | 0.25        |
| P31361   | Pou3f3 Brn-1 Brn1   | POU domain, class 3, transcription fac   | 0.3645657  | 0.476596 | 0.76494  | 8  | 0.466273 | 0.45        | 0.45        |
| P31750   | Akt1 Akt Rac        | RAC-alpha serine/threonine-protein kin   | -0.1715954 | 0.150972 | -1.1366  | 8  | 0.288603 | 0.336363636 | 0.336363636 |
| P31786   | Dbi                 | Acyl-CoA-binding protein (ACBP) (Dia     | 0.5243269  | 0.372785 | 1.40651  | 8  | 0.197208 | 0.227272727 | 0.227272727 |
| P31938   | Map2k1 Mek1 Prkm1   | Dual specificity mitogen-activated prot  | 0.1284858  | 0.21756  | 0.59058  | 8  | 0.571108 | 0.423076923 | 0.423076923 |
| P32020   | Scp2 Scp-2          | Sterol carrier protein 2 (SCP-2) (Acetyl | 0.2534213  | 0.145313 | 1.74397  | 8  | 0.119322 | 0.3         | 0.3         |
| P32067   | Ssb Ss-b            | Lupus La protein homolog (La autoant     | 0.0010224  | 0.141416 | 0.00723  | 8  | 0.994409 | 0.268571429 | 0.268571429 |
| P32233   | Drg1 Drg Nedd-3 Ne  | Developmentally-regulated GTP-bindin     | -0.0070365 | 0.156909 | -0.04484 | 8  | 0.96533  | 0.288888889 | 0.288888889 |
| P32261   | Serpinc1 At3        | Antithrombin-III (ATIII) (Serpins C1)    | 0.1299019  | 0.401556 | 0.3235   | 5  | 0.759412 | 0.6         | 0.3         |
| P32507   | Nectin2 Mph Pvr Pvr | Nectin-2 (Herpes virus entry mediator    | -0.157722  | 0.2824   | -0.55851 | 7  | 0.593905 | 0.6         | 0.5         |
| P32883-2 | Kras Kras2          | GTPase KRAS (EC 3.6.5.2) (K-Ras 2) (Ki   | 0.3851626  | 0.29614  | 1.30061  | 8  | 0.229605 | 0.28        | 0.28        |
| P32921   | Wars1 Wars Wrs      | Tryptophan--tRNA ligase, cytoplasmic (   | 0.1793019  | 0.140227 | 1.27865  | 8  | 0.236864 | 0.256       | 0.256       |
| P33173   | Kif1a Atsv Kif1     | Kinesin-like protein KIF1A (Axonal tran  | -0.3373035 | 0.374221 | -0.90135 | 8  | 0.393729 | 0.533333333 | 0.533333333 |
| P33174   | Kif4 Kif4a Kns4     | Chromosome-associated kinesin KIF4       | -0.0909925 | 0.189111 | -0.48116 | 8  | 0.643288 | 0.451515152 | 0.451515152 |
| P33175   | Kif5a Kiaa4086 Kif5 | Kinesin heavy chain isoform 5A (Kinesi   | -1.0262554 | 1.515167 | -0.67732 | 2  | 0.568047 | 0.6         | 0           |
| P33215   | Nedd1 Nedd-1        | Protein NEDD1 (Neural precursor cell     | 0.2912849  | 0.250075 | 1.16479  | 8  | 0.277659 | 0.5         | 0.5         |
| P33609   | Pola1 Pola          | DNA polymerase alpha catalytic subun     | -0.19723   | 0.178772 | -1.10325 | 8  | 0.301998 | 0.375       | 0.375       |

|          |                    |                                                              |            |          |          |   |          |             |             |
|----------|--------------------|--------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P33610   | Prim2              | DNA primase large subunit (DNA primase)                      | -0.0313529 | 0.157614 | -0.19892 | 8 | 0.847287 | 0.4         | 0.4         |
| P33611   | Pola2              | DNA polymerase alpha subunit B (DNA polymerase)              | -0.0810326 | 0.26725  | -0.30321 | 8 | 0.769466 | 0.428571429 | 0.428571429 |
| P34022   | Ranbp1 Htf9-a Htf9 | Ran-specific GTPase-activating protein                       | 0.3276426  | 0.350458 | 0.9349   | 8 | 0.377197 | 0.295454545 | 0.295454545 |
| P34152   | Ptk2 Fdk Fak Fak1  | Focal adhesion kinase 1 (FADK 1) (EC 2.7.10.1)               | -0.0396814 | 0.206511 | -0.19215 | 8 | 0.852412 | 0.353846154 | 0.353846154 |
| P34884   | Mif                | Macrophage migration inhibitory factor                       | 0.2574114  | 0.299698 | 0.8589   | 8 | 0.415386 | 0.25        | 0.25        |
| P35123   | Usp4 Unp           | Ubiquitin carboxyl-terminal hydrolase                        | -0.1616356 | 0.132585 | -1.21911 | 8 | 0.257526 | 0.433333333 | 0.433333333 |
| P35235-1 | Ptpn11             | Tyrosine-protein phosphatase non-receptor type 11            | 0.1068761  | 0.142655 | 0.74919  | 8 | 0.475192 | 0.407692308 | 0.407692308 |
| P35278   | Rab5c              | Ras-related protein Rab-5C (EC 3.6.5.2)                      | -0.0659059 | 0.175364 | -0.37582 | 8 | 0.716819 | 0.1         | 0.1         |
| P35279   | Rab6a Rab6 MNCb    | Ras-related protein Rab-6A (Rab-6)                           | -0.1039499 | 0.89074  | -0.1167  | 8 | 0.909974 | 0.4         | 0.4         |
| P35282   | Rab21              | Ras-related protein Rab-21 (Rab-12)                          | -0.2513957 | 0.232373 | -1.08187 | 7 | 0.315167 | 0.566666667 | 0.466666667 |
| P35285   | Rab22a Rab22       | Ras-related protein Rab-22A (Rab-22)                         | 0.9550217  | 0.503877 | 1.89535  | 2 | 0.198521 | 0.6         | 0           |
| P35288   | Rab23 Opb          | Ras-related protein Rab-23 (Protein of Olfaction)            | 0.1773822  | 0.782942 | 0.22656  | 8 | 0.826449 | 0.366666667 | 0.366666667 |
| P35293   | Rab18              | Ras-related protein Rab-18                                   | 0.0254094  | 0.250141 | 0.10158  | 8 | 0.92159  | 0.3875      | 0.3875      |
| Q9WTU6   | Mapk9 Jnk2 Prkm9   | Mitogen-activated protein kinase 9 (MAPK9)                   | 0.7797323  | 0.163996 | 4.75459  | 2 | 0.041501 | 0.6         | 0           |
| P35486   | Pdha1 Pdha-1       | Pyruvate dehydrogenase E1 component                          | 0.0740435  | 0.138277 | 0.53547  | 8 | 0.606885 | 0.320833333 | 0.320833333 |
| P35550   | Fbl                | rRNA 2'-O-methyltransferase fibrillarin                      | -0.2025534 | 0.131543 | -1.53983 | 8 | 0.162166 | 0.30952381  | 0.30952381  |
| P35564   | Canx               | Calnexin                                                     | 0.0897662  | 0.162726 | 0.55164  | 8 | 0.596263 | 0.197959184 | 0.197959184 |
| P35585   | Ap1m1 Cltnm        | AP-1 complex subunit mu-1 (AP-mu complex)                    | -0.2664635 | 0.204121 | -1.30542 | 8 | 0.228041 | 0.44        | 0.44        |
| P35601   | Rfc1 lbf-1 Recc1   | Replication factor C subunit 1 (A1-P14)                      | 0.3173591  | 0.376753 | 0.84235  | 8 | 0.424055 | 0.355555556 | 0.355555556 |
| P35700   | Prdx1 Msp23 Paga T | Peroxiredoxin-1 (EC 1.11.1.24) (Macrocyclic)                 | 0.069383   | 0.110953 | 0.62534  | 8 | 0.549168 | 0.195454545 | 0.195454545 |
| P35762   | Cd81 Tapa1         | CD81 antigen (26 kDa cell surface protein)                   | -0.2610313 | 0.334551 | -0.78024 | 8 | 0.45771  | 0.425       | 0.425       |
| P35802   | Gpm6a M6a          | Neuronal membrane glycoprotein M6a                           | -0.1933688 | 0.413478 | -0.46766 | 8 | 0.6525   | 0.257142857 | 0.257142857 |
| P35821   | Ptpn1              | Tyrosine-protein phosphatase non-receptor type 1             | -0.2515015 | 0.271214 | -0.92732 | 8 | 0.380887 | 0.544444444 | 0.544444444 |
| P35831   | Ptpn12             | Tyrosine-protein phosphatase non-receptor type 12            | 0.5914446  | 0.304107 | 1.94486  | 8 | 0.087686 | 0.483333333 | 0.483333333 |
| P35951   | Ldlr               | Low-density lipoprotein receptor (LDL receptor)              | 0.4268183  | 0.39844  | 1.07122  | 8 | 0.315319 | 0.442857143 | 0.442857143 |
| P35979   | Rpl12              | Large ribosomal subunit protein uL11                         | -0.2378525 | 0.113407 | -2.09734 | 8 | 0.069223 | 0.01        | 0.01        |
| P35980   | Rpl18              | Large ribosomal subunit protein eL18 (R18)                   | 0.3666423  | 0.523913 | 0.69981  | 8 | 0.503881 | 0.333333333 | 0.333333333 |
| P36552   | Cpox Cpo           | Oxygen-dependent coproporphyrinogen decarboxylase            | 0.4819734  | 0.267465 | 1.80201  | 7 | 0.114547 | 0.4         | 0.3         |
| P36916   | Gnl1 Gna-rs1 Mmr1  | Guanine nucleotide-binding protein-like 1                    | 0.4773478  | 0.384328 | 1.24203  | 8 | 0.2494   | 0.484615385 | 0.484615385 |
| P37040   | Por                | NADPH--cytochrome P450 reductase (cytochrome P450 reductase) | 0.5500047  | 0.316862 | 1.73579  | 8 | 0.120816 | 0.405       | 0.405       |
| P38060   | Hmgcl              | Hydroxymethylglutaryl-CoA lyase, mitochondrial               | 0.1651422  | 0.15929  | 1.03674  | 8 | 0.330175 | 0.390909091 | 0.390909091 |
| P38585   | Ttl                | Tubulin--tyrosine ligase (TTL) (EC 6.3.2.1)                  | 1.2114145  | 0.356319 | 3.3998   | 1 | 0.182116 | 0.7         | 0           |
| P38647   | Hspa9 Grp75 Hsp70  | Stress-70 protein, mitochondrial (75 kDa)                    | -0.026228  | 0.123917 | -0.21166 | 8 | 0.837667 | 0.249180328 | 0.249180328 |
| P39053   | Dnm1 Dnm Kiaa409   | Dynamin-1 (EC 3.6.5.5) (Dynamin) (Dnm1)                      | 0.1890873  | 0.360808 | 0.52407  | 6 | 0.61902  | 0.583333333 | 0.383333333 |
| P39429   | Traf2              | TNF receptor-associated factor 2 (EC 2.3.1.1)                | 0.3371813  | 0.804577 | 0.41908  | 2 | 0.715879 | 0.6         | 0           |
| P39688   | Fyn                | Tyrosine-protein kinase Fyn (EC 2.7.10.1)                    | 0.1439411  | 0.542535 | 0.26531  | 8 | 0.797477 | 0.525       | 0.525       |
| P40124   | Cap1 Cap           | Adenylyl cyclase-associated protein 1 (CAP1)                 | 0.0587184  | 0.08832  | 0.66484  | 8 | 0.524852 | 0.227027027 | 0.227027027 |
| P40142   | Tkt                | Transketolase (TK) (EC 2.2.1.1) (P68)                        | -0.0510062 | 0.186295 | -0.27379 | 8 | 0.791181 | 0.170769231 | 0.170769231 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P40201   | Chd1 Chd-1         | Chromodomain-helicase-DNA-binding        | 0.2100305  | 0.487249 | 0.43105  | 8 | 0.677808 | 0.48        | 0.48        |
| P40336   | Vps26a Vps26       | Vacuolar protein sorting-associated pr   | -0.346589  | 0.296019 | -1.17083 | 8 | 0.275357 | 0.525       | 0.525       |
| P40630   | Tfam Hmgt          | Transcription factor A, mitochondrial (  | -0.2833298 | 0.230133 | -1.23116 | 8 | 0.253229 | 0.45        | 0.45        |
| P41105   | Rpl28              | Large ribosomal subunit protein eL28 (   | 0.4509644  | 0.515994 | 0.87397  | 8 | 0.407603 | 0.25        | 0.25        |
| Q8VE42   | Ankrd49 Fgif Gbif  | Ankyrin repeat domain-containing pro     | 0.7711603  | 0.237638 | 3.2451   | 4 | 0.031521 | 0.4         | 0           |
| P41241   | Csk                | Tyrosine-protein kinase CSK (EC 2.7.1    | 0.0738319  | 0.199297 | 0.37046  | 8 | 0.720655 | 0.375       | 0.375       |
| P41778-2 | Pbx1 Pbx-1         | Pre-B-cell leukemia transcription facto  | -0.3594039 | 0.27429  | -1.31031 | 8 | 0.22646  | 0.257142857 | 0.257142857 |
| P42125   | Eci1 Dci           | Enoyl-CoA delta isomerase 1, mitoch      | -0.2015484 | 0.13574  | -1.48482 | 8 | 0.175891 | 0.225       | 0.225       |
| P42128   | Foxk1 Mnf          | Forkhead box protein K1 (Myocyte nuc     | 0.2191313  | 0.346128 | 0.63309  | 6 | 0.550026 | 0.4         | 0.2         |
| P42208   | Septin2 Nedd5 Sep1 | Septin-2 (Neural precursor cell express  | 0.2137667  | 0.191831 | 1.11435  | 8 | 0.297485 | 0.190909091 | 0.190909091 |
| P42227   | Stat3 Aprf         | Signal transducer and activator of tran  | -0.0953776 | 0.22132  | -0.43095 | 4 | 0.688713 | 0.4         | 0           |
| P42567   | Eps15              | Epidermal growth factor receptor subs    | -1.0017258 | 0.516827 | -1.93822 | 1 | 0.303232 | 0.7         | 0           |
| P42669   | Pura               | Transcriptional activator protein Pur-al | 0.0863476  | 0.502301 | 0.1719   | 8 | 0.867782 | 0.375       | 0.375       |
| P42932   | Cct8 Cctq          | T-complex protein 1 subunit theta (TC    | 0.0441472  | 0.166557 | 0.26506  | 8 | 0.797667 | 0.223728814 | 0.223728814 |
| Q9CZA6   | Nde1 Nude          | Nuclear distribution protein nudE hon    | 0.7627065  | 0.287581 | 2.65215  | 8 | 0.029159 | 0.525       | 0.525       |
| P43135   | Nr2f2 Aporp1 Arp-1 | COUP transcription factor 2 (COUP-TF     | 0.4092162  | 0.573862 | 0.71309  | 8 | 0.49606  | 0.366666667 | 0.366666667 |
| P43247   | Msh2               | DNA mismatch repair protein Msh2 (M      | 0.0107916  | 0.212023 | 0.0509   | 8 | 0.960654 | 0.3         | 0.3         |
| P43274   | H1-4 H1f4 Hist1h1  | Histone H1.4 (H1 VAR.2) (H1e)            | 0.0570952  | 0.342015 | 0.16694  | 8 | 0.871561 | 0.185714286 | 0.185714286 |
| P43275   | H1-1 H1a H1f1 Hist | Histone H1.1 (H1 VAR.3) (Histone H1      | 0.1054004  | 0.512803 | 0.20554  | 8 | 0.842286 | 0.225       | 0.225       |
| P43276   | H1-5 H1f5 Hist1h1  | Histone H1.5 (H1 VAR.5) (H1b)            | 0.0883392  | 0.449033 | 0.19673  | 8 | 0.848943 | 0.141666667 | 0.141666667 |
| P43346   | Dck                | Deoxycytidine kinase (dCK) (EC 2.7.1.    | -0.1751966 | 0.234811 | -0.74612 | 8 | 0.476947 | 0.4         | 0.4         |
| P43406   | Itgav              | Integrin alpha-V (Vitronectin receptor   | 0.0801062  | 0.27402  | 0.29234  | 7 | 0.778504 | 0.6         | 0.5         |
| P45376   | Akr1b1 Akr1b3 Aldc | Aldo-keto reductase family 1 member      | 0.3307902  | 0.1651   | 2.00358  | 8 | 0.080071 | 0.195454545 | 0.195454545 |
| P45377   | Akr1b8 Fgfrp       | Aldose reductase-related protein 2 (AR   | -0.1105305 | 0.350848 | -0.31504 | 8 | 0.760793 | 0.4         | 0.4         |
| P45481   | Crebbp Cbp         | Histone lysine acetyltransferase CREB    | 0.0679237  | 0.235464 | 0.28847  | 8 | 0.780322 | 0.2         | 0.2         |
| P45591   | Cfl2               | Cofilin-2 (Cofilin, muscle isoform)      | 0.2880335  | 0.28724  | 1.00276  | 8 | 0.345337 | 0.4         | 0.4         |
| P45878   | Fkbp2 Fkbp13       | Peptidyl-prolyl cis-trans isomerase FKE  | -0.3208806 | 0.249746 | -1.28483 | 8 | 0.234802 | 0.44        | 0.44        |
| P45952   | Acadm              | Medium-chain specific acyl-CoA dehyd     | -0.0026567 | 0.281927 | -0.00942 | 8 | 0.992712 | 0.433333333 | 0.433333333 |
| P46061   | Rangap1 Fug1       | Ran GTPase-activating protein 1 (RanG    | 0.1661377  | 0.117275 | 1.41665  | 8 | 0.194327 | 0.2325      | 0.2325      |
| Q9WTX8   | Mad1l1 Mad1        | Mitotic spindle assembly checkpoint p    | 0.7527593  | 0.226582 | 3.32224  | 8 | 0.010505 | 0.511111111 | 0.511111111 |
| P46414   | Cdkn1b             | Cyclin-dependent kinase inhibitor 1B (   | -0.0416828 | 0.192617 | -0.2164  | 8 | 0.83409  | 0.285714286 | 0.285714286 |
| P46460   | Nsf Skd2           | Vesicle-fusing ATPase (EC 3.6.4.6) (N-   | 0.0616538  | 0.076087 | 0.81031  | 8 | 0.441197 | 0.33        | 0.33        |
| P46467   | Vps4b Skd1         | Vacuolar protein sorting-associated pr   | 0.0103287  | 0.125949 | 0.08201  | 8 | 0.936656 | 0.211111111 | 0.211111111 |
| P46471   | Psmc2 Mss1         | 26S proteasome regulatory subunit 7 (    | 0.0775188  | 0.227785 | 0.34032  | 8 | 0.742383 | 0.2         | 0.2         |
| P46638   | Rab11b             | Ras-related protein Rab-11B (EC 3.6.5    | 0.2587437  | 0.535548 | 0.48314  | 8 | 0.641942 | 0.3         | 0.3         |
| P46660   | Ina                | Alpha-internexin (Alpha-Inx) (66 kDa n   | 0.9672581  | 0.470208 | 2.05708  | 8 | 0.073693 | 0.286666667 | 0.286666667 |
| P46664   | Adss2 Adss         | Adenylosuccinate synthetase isozyme      | 0.3040516  | 0.350144 | 0.86836  | 8 | 0.410488 | 0.341176471 | 0.341176471 |
| P46735   | Myo1b              | Unconventional myosin-1b (MIH-L) (My     | 0.0106207  | 0.198809 | 0.05342  | 8 | 0.958706 | 0.35625     | 0.35625     |

|          |        |               |                                          |            |          |          |   |          |             |             |
|----------|--------|---------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P46737   | Brcc3  | Brcc36 C6.1a  | Lys-63-specific deubiquitinase BRCC3     | 0.7300301  | 0.355082 | 2.05595  | 8 | 0.073823 | 0.4         | 0.4         |
| P46935   | Nedd4  | Kiaa0093 Ne   | E3 ubiquitin-protein ligase NEDD4 (EC    | -0.0964207 | 0.141085 | -0.68342 | 8 | 0.513644 | 0.213207547 | 0.213207547 |
| P46938   | Yap1   | Yap Yap65     | Transcriptional coactivator YAP1 (Yes-   | 0.2951289  | 0.249436 | 1.18319  | 8 | 0.270701 | 0.4         | 0.4         |
| P46978   | Stt3a  | Itm1          | Dolichyl-diphosphooligosaccharide--p     | -0.1049381 | 0.527633 | -0.19888 | 8 | 0.847315 | 0.5         | 0.5         |
| P47199   | Cryz   |               | Quinone oxidoreductase (EC 1.6.5.5) (    | 0.0590587  | 0.115696 | 0.51046  | 8 | 0.62351  | 0.4         | 0.4         |
| P47708   | Rph3a  |               | Rabphilin-3A (Exophilin-1)               | 0.1272345  | 0.191822 | 0.66329  | 1 | 0.627155 | 0.7         | 0           |
| P47738   | Aldh2  | Ahd-1 Ahd1    | Aldehyde dehydrogenase, mitochondri      | 0.1241921  | 0.115992 | 1.0707   | 8 | 0.315541 | 0.28        | 0.28        |
| Q80UY2   | Kcmf1  | Debt91        | E3 ubiquitin-protein ligase KCMF1 (EC    | 0.7524344  | 0.268231 | 2.80517  | 8 | 0.023014 | 0.383333333 | 0.383333333 |
| P47754   | Capza2 | Cappa2        | F-actin-capping protein subunit alpha-   | 0.1445103  | 0.070688 | 2.04434  | 8 | 0.075166 | 0.21875     | 0.21875     |
| P47757-2 | Capzb  | Cappb1        | F-actin-capping protein subunit beta (   | 0.0502249  | 0.202908 | 0.24753  | 8 | 0.810736 | 0.220689655 | 0.220689655 |
| P47758   | Srprb  |               | Signal recognition particle receptor su  | -0.3002755 | 0.241995 | -1.24083 | 8 | 0.249819 | 0.275       | 0.275       |
| P47759   | Nsg2   |               | Neuronal vesicle trafficking-associated  | -0.2537107 | 0.189328 | -1.34006 | 7 | 0.222088 | 0.3         | 0.2         |
| P47791   | Gsr    | Gr1           | Glutathione reductase, mitochondrial (   | 0.0623048  | 0.08128  | 0.76654  | 8 | 0.465368 | 0.26875     | 0.26875     |
| P47802   | Mtx1   | Mtx Mtxn      | Metaxin-1 (Mitochondrial outer membr     | -0.3260381 | 0.357698 | -0.91149 | 8 | 0.388677 | 0.266666667 | 0.266666667 |
| P47809   | Map2k4 | Jnk1 Mek4     | Dual specificity mitogen-activated prot  | 0.3515653  | 0.258962 | 1.35759  | 8 | 0.211646 | 0.25        | 0.25        |
| P47811   | Mapk14 | Crk1 Csbp1    | Mitogen-activated protein kinase 14 (M   | 0.2820863  | 0.211461 | 1.33399  | 8 | 0.218933 | 0.48        | 0.48        |
| P47856   | Gfpt1  | Gfpt          | Glutamine--fructose-6-phosphate ami      | -0.3694024 | 0.244758 | -1.50926 | 8 | 0.169671 | 0.44        | 0.44        |
| P47857   | Pfkm   | Pfk-m PfkA    | ATP-dependent 6-phosphofructokinase      | -0.0725823 | 0.172043 | -0.42188 | 8 | 0.684219 | 0.344444444 | 0.344444444 |
| P47867   | Scg3   |               | Secretogranin-3 (Secretogranin III) (Sg  | 1.6201431  | 0.981121 | 1.65132  | 5 | 0.159584 | 0.3         | 0           |
| P47877   | Igfbp2 | Igfbp-2       | Insulin-like growth factor-binding prot  | 0.2429948  | 0.152706 | 1.59126  | 8 | 0.150215 | 0.357142857 | 0.357142857 |
| E9PYH0   | Vcan   |               | Versican core protein (Chondroitin sul   | 0.7514728  | 0.244163 | 3.07775  | 8 | 0.015168 | 0.314285714 | 0.314285714 |
| P47911   | Rpl6   |               | Large ribosomal subunit protein eL6 (E   | 0.195995   | 0.394342 | 0.49702  | 8 | 0.632546 | 0.189655172 | 0.189655172 |
| P47915   | Rpl29  | Rpl43         | Large ribosomal subunit protein eL29 (   | 0.0199092  | 0.832576 | 0.02391  | 8 | 0.981508 | 0.133333333 | 0.133333333 |
| P47941   | Crkl   | Crkol         | Crk-like protein                         | 0.1822281  | 0.155568 | 1.17138  | 8 | 0.275152 | 0.242857143 | 0.242857143 |
| P47955   | Rplp1  |               | Large ribosomal subunit protein P1 (60   | 0.034849   | 0.438685 | 0.07944  | 8 | 0.938634 | 0.25        | 0.25        |
| P47962   | Rpl5   |               | Large ribosomal subunit protein uL18     | -0.0204452 | 0.378548 | -0.05401 | 8 | 0.958252 | 0.15        | 0.15        |
| P47963   | Rpl13  |               | Large ribosomal subunit protein eL13 (   | -0.1503553 | 0.500216 | -0.30058 | 8 | 0.771397 | 0.329411765 | 0.329411765 |
| P47964   | Rpl36  |               | Large ribosomal subunit protein eL36 (   | 0.1456798  | 0.22758  | 0.64013  | 8 | 0.539987 | 0.185714286 | 0.185714286 |
| P47968   | Rpia   | Rpi           | Ribose-5-phosphate isomerase (EC 5.:     | -0.0165998 | 0.06398  | -0.25945 | 8 | 0.801839 | 0.233333333 | 0.233333333 |
| P48024   | Eif1   | Sui1 Sui1-rs1 | Eukaryotic translation initiation factor | 0.7131619  | 0.506968 | 1.40672  | 8 | 0.197149 | 0.314285714 | 0.314285714 |
| P48036   | Anxa5  | Anx5          | Annexin A5 (Anchorin CII) (Annexin V)    | 0.8549778  | 0.592649 | 1.44264  | 8 | 0.187106 | 0.381818182 | 0.381818182 |
| P48193   | Epb41  | Epb4.1 Kiaa   | Protein 4.1 (P4.1) (4.1R) (Band 4.1) (E  | 0.0456503  | 0.131419 | 0.34736  | 8 | 0.737279 | 0.277142857 | 0.277142857 |
| P48301   | Tead2  | Etdf Etf Tef4 | Transcriptional enhancer factor TEF-4 (  | 0.0056473  | 0.578655 | 0.00976  | 8 | 0.992452 | 0.35        | 0.35        |
| P48381   | Rfx3   |               | Transcription factor RFX3 (Regulatory f  | -0.4509212 | 0.279323 | -1.61434 | 8 | 0.145119 | 0.533333333 | 0.533333333 |
| P48428   | Tbca   |               | Tubulin-specific chaperone A (TCP1-cl    | 0.4000975  | 0.620878 | 0.64441  | 8 | 0.537347 | 0.341666667 | 0.341666667 |
| P48453   | Ppp3cb | Calnb         | Serine/threonine-protein phosphatase     | 0.2938463  | 0.163942 | 1.79238  | 8 | 0.110836 | 0.3         | 0.3         |
| P48678   | Lmna   | Lmn1          | Prelamin-A/C [Cleaved into: Lamin-A/C    | -0.5333191 | 1.482752 | -0.35968 | 3 | 0.742914 | 0.55        | 0.05        |
| P48722   | Hspa4l | Apg1 Hsp4l    | Heat shock 70 kDa protein 4L (Heat sh    | 0.5236022  | 0.235223 | 2.22598  | 8 | 0.056651 | 0.451851852 | 0.451851852 |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P48725 | Pcnt Pcnt2         | Pericentrin                              | 0.0354399  | 1.505608 | 0.02354  | 6 | 0.981984 | 0.45        | 0.25        |
| P48758 | Cbr1 Cbr           | Carbonyl reductase [NADPH] 1 (EC 1.1     | 0.1612392  | 0.247894 | 0.65044  | 8 | 0.533641 | 0.255       | 0.255       |
| P48771 | Cox7a2 Cox7a3 Co   | Cytochrome c oxidase subunit 7A2, m      | 0.2136299  | 0.333226 | 0.6411   | 8 | 0.539388 | 0.2         | 0.2         |
| P48774 | Gstm5 Fsc2 Gstm3   | Glutathione S-transferase Mu 5 (EC 2.1   | 0.6130727  | 0.447372 | 1.37039  | 8 | 0.207784 | 0.478571429 | 0.478571429 |
| P48962 | Slc25a4 Aac1 Anc1  | ADP/ATP translocase 1 (ADP,ATP carri     | -0.0140216 | 0.130879 | -0.10713 | 8 | 0.917321 | 0.366666667 | 0.366666667 |
| P49025 | Cit Crik           | Citron Rho-interacting kinase (CRIK) (E  | -0.1683477 | 0.690822 | -0.24369 | 4 | 0.819458 | 0.4         | 0           |
| P49070 | Camlg Caml Get2    | Guided entry of tail-anchored proteins   | -0.3565676 | 0.308061 | -1.15746 | 6 | 0.291076 | 0.633333333 | 0.433333333 |
| P49117 | Nr2c2 Mtr2r1 Tak1  | Nuclear receptor subfamily 2 group C     | -0.580398  | 0.299696 | -1.93662 | 6 | 0.100914 | 0.666666667 | 0.466666667 |
| P49312 | Hnrnpa1 Fli-2 Hnrp | Heterogeneous nuclear ribonucleoprotei   | -0.6494589 | 0.43495  | -1.49318 | 7 | 0.179028 | 0.5         | 0.4         |
| P49442 | Inpp1              | Inositol polyphosphate 1-phosphatase     | 0.5314614  | 0.489403 | 1.08594  | 6 | 0.319198 | 0.666666667 | 0.466666667 |
| P49443 | Ppm1a Pppm1a       | Protein phosphatase 1A (EC 3.1.3.16)     | 0.2557996  | 0.157071 | 1.62856  | 8 | 0.142055 | 0.392307692 | 0.392307692 |
| P49452 | Cenpc Cenpc1       | Centromere protein C (CENP-C) (Cen       | 0.4682644  | 0.368916 | 1.2693   | 2 | 0.332052 | 0.65        | 0.05        |
| P49586 | Pcyt1a Ctpct Pcyt1 | Choline-phosphate cytidylyltransferase   | -0.0008744 | 0.158371 | -0.00552 | 8 | 0.99573  | 0.291666667 | 0.291666667 |
| P49615 | Cdk5 Cdkn5 Crk6    | Cyclin-dependent kinase 5 (EC 2.7.11.    | 0.2108068  | 0.220813 | 0.95469  | 8 | 0.36769  | 0.325       | 0.325       |
| P49717 | Mcm4 Cdc21 Mcmd    | DNA replication licensing factor MCM4    | -0.1359771 | 0.871809 | -0.15597 | 8 | 0.87992  | 0.471428571 | 0.471428571 |
| P49718 | Mcm5 Cdc46 Mcmd    | DNA replication licensing factor MCM5    | 0.0399142  | 0.159093 | 0.25089  | 8 | 0.808226 | 0.277777778 | 0.277777778 |
| P49722 | Psma2 Lmpc3        | Proteasome subunit alpha type-2 (Mac     | 0.1663823  | 0.194173 | 0.85687  | 8 | 0.416442 | 0.12        | 0.12        |
| P49919 | Cdkn1c Kip2        | Cyclin-dependent kinase inhibitor 1C     | 0.1043125  | 0.182441 | 0.57176  | 8 | 0.583188 | 0.22        | 0.22        |
| P49962 | Srp9               | Signal recognition particle 9 kDa protei | -0.5309856 | 0.39772  | -1.33507 | 8 | 0.218594 | 0.3         | 0.3         |
| P50096 | Impdh1             | Inosine-5'-monophosphate dehydroge       | -0.2349349 | 0.30955  | -0.75896 | 6 | 0.476626 | 0.566666667 | 0.366666667 |
| P50136 | Bckdha             | 2-oxoisovalerate dehydrogenase subu      | 0.083325   | 0.287485 | 0.28984  | 8 | 0.779308 | 0.533333333 | 0.533333333 |
| P50171 | Hsd17b8 H2-Ke6 H   | (3R)-3-hydroxyacyl-CoA dehydrogena       | 0.3528136  | 0.514826 | 0.68531  | 8 | 0.512515 | 0.2         | 0.2         |
| P50220 | Nkx2-1 Nkx-2.1 Tif | Homeobox protein Nkx-2.1 (Thyroid n      | -0.1828758 | 0.504954 | -0.36216 | 2 | 0.751918 | 0.6         | 0           |
| P50247 | Ahcy               | Adenosylhomocysteinase (AdoHcyase)       | 0.3330037  | 0.160847 | 2.07032  | 8 | 0.072194 | 0.248571429 | 0.248571429 |
| Q9CQT5 | Pomp               | Proteasome maturation protein (Prote     | 0.7397844  | 0.27682  | 2.67244  | 8 | 0.028255 | 0.45        | 0.45        |
| P50428 | Arsa As2           | Arylsulfatase A (ASA) (EC 3.1.6.8) (Ce   | 1.3843858  | 0.886637 | 1.56139  | 2 | 0.258825 | 0.7         | 0.1         |
| P50431 | Shmt1 Shmt         | Serine hydroxymethyltransferase, cyto    | 0.2488442  | 0.18212  | 1.36638  | 8 | 0.208987 | 0.291666667 | 0.291666667 |
| P50516 | Atp6v1a Atp6a1 At  | V-type proton ATPase catalytic subuni    | 0.2705036  | 0.164835 | 1.64105  | 8 | 0.139414 | 0.286111111 | 0.286111111 |
| P50518 | Atp6v1e1 Atp6e At  | V-type proton ATPase subunit E 1 (V-A    | 0.4086459  | 0.346964 | 1.17778  | 8 | 0.272732 | 0.409090909 | 0.409090909 |
| P50543 | S100a11 S100c      | Protein S100-A11 (Calgizzarin) (Endo     | 0.9664386  | 0.634651 | 1.52279  | 8 | 0.166312 | 0.266666667 | 0.266666667 |
| P50544 | Acadvl Vlcad       | Very long-chain specific acyl-CoA dehy   | 0.1810064  | 0.359314 | 0.50376  | 8 | 0.62801  | 0.325       | 0.325       |
| P50580 | Pa2g4 Ebp1 Plfap   | Proliferation-associated protein 2G4 (I  | 0.0872354  | 0.183966 | 0.47419  | 8 | 0.648036 | 0.266666667 | 0.266666667 |
| P51150 | Rab7a Rab7         | Ras-related protein Rab-7a (EC 3.6.5.2   | 0.199749   | 0.181487 | 1.10062  | 8 | 0.303072 | 0.364705882 | 0.364705882 |
| P51163 | Uros Uros3         | Uroporphyrinogen-III synthase (UROIII    | 0.109797   | 0.250278 | 0.4387   | 6 | 0.676235 | 0.575       | 0.375       |
| P51174 | Acadl              | Long-chain specific acyl-CoA dehydrog    | -0.012987  | 0.266828 | -0.04867 | 8 | 0.962374 | 0.4         | 0.4         |
| P51410 | Rpl9               | Large ribosomal subunit protein uL6 (E   | 0.1002393  | 0.141908 | 0.70637  | 8 | 0.500009 | 0.208695652 | 0.208695652 |
| P51432 | Plcb3              | 1-phosphatidylinositol 4,5-bisphosph     | 0.0544175  | 0.763861 | 0.07124  | 6 | 0.945522 | 0.525       | 0.325       |
| P51655 | Gpc4               | Glypican-4 (K-glypican) [Cleaved into: : | -0.2309854 | 0.151816 | -1.52148 | 8 | 0.166633 | 0.15        | 0.15        |

|          |                      |                                          |            |          |          |   |          |             |             |
|----------|----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P51660   | Hsd17b4 Edh17b4      | Peroxisomal multifunctional enzyme ty    | 0.0339492  | 0.190029 | 0.17865  | 8 | 0.862652 | 0.296969697 | 0.296969697 |
| P51807   | Dynlt1 Tctel1 Tctex- | Dynein light chain Tctex-type 1 (Activat | -0.1979379 | 0.134041 | -1.4767  | 8 | 0.178002 | 0.133333333 | 0.133333333 |
| P51855   | Gss                  | Glutathione synthetase (GSH syntheta     | -0.5560754 | 0.57544  | -0.96635 | 2 | 0.435822 | 0.6         | 0           |
| P51859   | HdGF TdrM1           | Hepatoma-derived growth factor (HDC      | 0.2125164  | 0.261582 | 0.81243  | 8 | 0.440051 | 0.271428571 | 0.271428571 |
| Q8QZV7   | IntS13 Asun Spata3   | Integrator complex subunit 13 (Cell cy   | 0.7362981  | 0.292781 | 2.51484  | 8 | 0.036098 | 0.516666667 | 0.516666667 |
| P51880   | Fabp7 Blbp           | Fatty acid-binding protein, brain (Brain | 0.1110927  | 0.228461 | 0.48627  | 8 | 0.639819 | 0.208333333 | 0.208333333 |
| P51881   | Slc25a5 Aac2 Ant2    | ADP/ATP translocase 2 (ADP,ATP carri     | 0.2233299  | 0.348189 | 0.6414   | 8 | 0.539198 | 0.228571429 | 0.228571429 |
| P51885   | Lum Lcn Ldc          | Lumican (Keratan sulfate proteoglycan    | 0.0474094  | 0.561951 | 0.08437  | 6 | 0.93551  | 0.6         | 0.4         |
| P51943   | Ccna2 Ccna Cyca C    | Cyclin-A2 (Cyclin-A)                     | -0.1285958 | 0.829816 | -0.15497 | 1 | 0.902122 | 0.7         | 0           |
| P51949   | Mnat1 Mat1           | CDK-activating kinase assembly factor    | -0.442374  | 0.553036 | -0.7999  | 6 | 0.454263 | 0.56        | 0.36        |
| P51954   | Nek1                 | Serine/threonine-protein kinase Nek1     | -1.5391691 | 0.648459 | -2.37358 | 4 | 0.076522 | 0.4         | 0           |
| P52196   | Tst                  | Thiosulfate sulfurtransferase (EC 2.8.1  | -0.2317089 | 0.16299  | -1.42161 | 7 | 0.198125 | 0.4         | 0.3         |
| P52293   | Kpna2 Rch1           | Importin subunit alpha-1 (Importin alp   | 0.0202118  | 0.228574 | 0.08843  | 8 | 0.931712 | 0.203448276 | 0.203448276 |
| P52431   | Pold1                | DNA polymerase delta catalytic subuni    | -0.1257501 | 0.171231 | -0.73439 | 8 | 0.483678 | 0.323684211 | 0.323684211 |
| Q8BTW3   | Exosc6 Mtr3          | Exosome complex component MTR3 (E        | 0.7285538  | 0.264024 | 2.75943  | 8 | 0.024697 | 0.4         | 0.4         |
| P52479-2 | Usp10 Kiaa0190 Oc    | Ubiquitin carboxyl-terminal hydrolase    | -0.2749873 | 0.236984 | -1.16036 | 8 | 0.279355 | 0           | 0           |
| O88935   | Syn1 Syn-1           | Synapsin-1 (Synapsin I)                  | 0.7282324  | 0.166247 | 4.38044  | 8 | 0.002347 | 0.433333333 | 0.433333333 |
| P52480-2 | Pkm Pk3 Pkm2 Pykr    | Pyruvate kinase PKM (EC 2.7.1.40) (Py    | 0.6051355  | 0.52869  | 1.14459  | 8 | 0.285465 | 0.1         | 0.1         |
| P52480   | Pkm Pk3 Pkm2 Pykr    | Pyruvate kinase PKM (EC 2.7.1.40) (Py    | 0.1385994  | 0.428396 | 0.32353  | 8 | 0.754589 | 0.04        | 0.04        |
| P52482   | Ube2e1 Ubce5 Ubcl    | Ubiquitin-conjugating enzyme E2 E1 (I    | -0.191146  | 0.159832 | -1.19592 | 8 | 0.265969 | 0           | 0           |
| P52483   | Ube2e3 Ubce4 Ubcl    | Ubiquitin-conjugating enzyme E2 E3 (I    | 0.2101051  | 0.443905 | 0.47331  | 8 | 0.648637 | 0.4         | 0.4         |
| P52503   | Ndufs6 Ip13          | NADH dehydrogenase [ubiquinone] iro      | 0.3090521  | 0.599613 | 0.51542  | 8 | 0.620197 | 0.316666667 | 0.316666667 |
| P52623   | Uck1 Umpk            | Uridine-cytidine kinase 1 (UCK 1) (EC    | -0.1960098 | 0.260604 | -0.75214 | 4 | 0.493808 | 0.65        | 0.25        |
| P52760   | Rida Hrp12           | 2-iminobutanoate/2-iminopropanoate       | -0.0506492 | 0.196365 | -0.25793 | 8 | 0.802969 | 0.4         | 0.4         |
| P52795   | Efnb1 Epl2 Eplg2 Lc  | Ephrin-B1 (CEK5 receptor ligand) (CEI    | -0.1837997 | 0.133725 | -1.37446 | 8 | 0.206568 | 0.207692308 | 0.207692308 |
| P52800   | Efnb2 Elf2 Epl5 Epl  | Ephrin-B2 (ELF-2) (EPH-related recept    | 0.3276633  | 0.174917 | 1.87325  | 8 | 0.097917 | 0.45        | 0.45        |
| P52825   | Cpt2 Cpt-2           | Carnitine O-palmitoyltransferase 2, mil  | -0.2248662 | 0.299338 | -0.75121 | 8 | 0.474041 | 0.4         | 0.4         |
| P52875   | Tmem165 Tparl        | Putative divalent cation/proton antipo   | -0.1531414 | 0.138402 | -1.1065  | 8 | 0.300671 | 0.033333333 | 0.033333333 |
| P52912   | Tia1 Tia             | Cytotoxic granule associated RNA binc    | 0.08059    | 0.26829  | 0.30038  | 8 | 0.771542 | 0.284615385 | 0.284615385 |
| P52927   | Hmga2 Hmgic          | High mobility group protein HMGI-C (H    | 0.822618   | 0.526271 | 1.56311  | 8 | 0.156655 | 0.2         | 0.2         |
| P52963   | Epb414a Epb4.1l4     | Band 4.1-like protein 4A (Erythrocyte r  | -0.2481667 | 0.092238 | -2.69051 | 3 | 0.074382 | 0.5         | 0           |
| P53395   | Dbt                  | Lipoamide acyltransferase component      | 0.3371007  | 0.336684 | 1.00124  | 8 | 0.346031 | 0.2         | 0.2         |
| P53564-3 | Cux1 Cutl1 Cux Kia   | Homeobox protein cut-like 1 (CCAAT c     | 0.0061219  | 0.256782 | 0.02384  | 8 | 0.981563 | 0.45        | 0.45        |
| P53569   | Cebpz Cbf2 Cebpa-    | CCAAT/enhancer-binding protein zeta      | -0.3866229 | 0.368165 | -1.05013 | 6 | 0.334101 | 0.625       | 0.425       |
| P53702   | Hccs Cchl            | Holocytochrome c-type synthase (EC       | 0.042606   | 0.198084 | 0.21509  | 8 | 0.835079 | 0.433333333 | 0.433333333 |
| P53783   | Sox1 Sox-1           | Transcription factor SOX-1               | 1.7001866  | 1.128292 | 1.50687  | 6 | 0.182564 | 0.525       | 0.325       |
| P53784   | Sox3 Sox-3           | Transcription factor SOX-3               | 0.0561772  | 0.392883 | 0.14299  | 8 | 0.889836 | 0.423529412 | 0.423529412 |
| Q91VJ5   | Pqbp1 Npw38          | Polyglutamine-binding protein 1 (PQBI    | 0.7252117  | 0.249483 | 2.90686  | 8 | 0.019684 | 0.377777778 | 0.377777778 |

|          |                      |                                         |            |          |          |   |          |             |             |
|----------|----------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P53810   | Pitpna Pitpn         | Phosphatidylinositol transfer protein ε | -0.0212845 | 0.17369  | -0.12254 | 8 | 0.905491 | 0.275       | 0.275       |
| P53986   | Slc16a1 Mct1         | Monocarboxylate transporter 1 (MCT 1    | 0.2765748  | 0.53982  | 0.51235  | 8 | 0.62225  | 0.42        | 0.42        |
| P53994   | Rab2a Rab2           | Ras-related protein Rab-2A (EC 3.6.5.2  | -0.0119821 | 0.17816  | -0.06725 | 8 | 0.948029 | 0.214285714 | 0.214285714 |
| P53995   | Anapc1 Mcpr Tsg24    | Anaphase-promoting complex subunit      | -0.1221051 | 0.23214  | -0.526   | 8 | 0.613155 | 0.428       | 0.428       |
| P53996-2 | Cnbp Cnbp1 Znf9      | CCHC-type zinc finger nucleic acid bin  | -0.3741183 | 0.323059 | -1.15805 | 8 | 0.280245 | 0           | 0           |
| P53996   | Cnbp Cnbp1 Znf9      | CCHC-type zinc finger nucleic acid bin  | -0.4584929 | 0.338164 | -1.35583 | 8 | 0.212182 | 0           | 0           |
| P54071   | Idh2                 | Isocitrate dehydrogenase [NADP], mito   | 0.0834266  | 0.165252 | 0.50484  | 8 | 0.627278 | 0.202857143 | 0.202857143 |
| P54103   | Dnajc2 Mida1 Zrf1    | DnaJ homolog subfamily C member 2 (     | -0.0231744 | 0.170753 | -0.13572 | 8 | 0.895396 | 0.3125      | 0.3125      |
| P54227   | Stmn1 Lag Lap18 Pr   | Stathmin (Leukemia-associated gene p    | 0.2739018  | 0.224658 | 1.21919  | 8 | 0.257495 | 0.278947368 | 0.278947368 |
| P54276   | Msh6 Gtmbp           | DNA mismatch repair protein Msh6 (G     | -0.1043298 | 0.125828 | -0.82915 | 8 | 0.431064 | 0.355555556 | 0.355555556 |
| P54310   | Lipe                 | Hormone-sensitive lipase (HSL) (EC 3.   | 0.1498773  | 0.164508 | 0.91106  | 7 | 0.392554 | 0.4         | 0.3         |
| P54726   | Rad23a Mhr23a        | UV excision repair protein RAD23 hom    | 0.0973792  | 0.091358 | 1.0659   | 8 | 0.317576 | 0.35        | 0.35        |
| P54728   | Rad23b Mhr23b        | UV excision repair protein RAD23 hom    | 0.5743236  | 0.579974 | 0.99026  | 8 | 0.35105  | 0           | 0           |
| P54729   | Nub1 Nyren18         | NEDD8 ultimate buster 1 (Negative reg   | 0.9048192  | 1.103049 | 0.82029  | 7 | 0.439087 | 0.366666667 | 0.266666667 |
| P54731   | Faf1                 | FAS-associated factor 1                 | 0.1503013  | 0.301248 | 0.49893  | 8 | 0.631258 | 0.35        | 0.35        |
| P54763   | Ephb2 Eph3 Nuk S     | Ephrin type-B receptor 2 (EC 2.7.10.1]  | 0.2241923  | 0.411869 | 0.54433  | 8 | 0.601053 | 0.41        | 0.41        |
| P54775   | Psmc4 Tbp7           | 26S proteasome regulatory subunit 6E    | 0.3367724  | 0.943341 | 0.357    | 7 | 0.731612 | 0.4         | 0.3         |
| P54822   | Adsl Adl             | Adenylosuccinate lyase (ASL) (EC 4.3.2  | 0.1762188  | 0.152973 | 1.15196  | 8 | 0.282599 | 0.253571429 | 0.253571429 |
| P54823   | Ddx6 Hlr2 Rck        | Probable ATP-dependent RNA helicase     | -0.1293538 | 0.144071 | -0.89785 | 8 | 0.395485 | 0.316129032 | 0.316129032 |
| P54923   | Adprh Arh1           | ADP-ribosylhydrolase ARH1 (EC 3.2.2.    | 0.411497   | 0.200526 | 2.05209  | 8 | 0.074266 | 0.28        | 0.28        |
| P55012   | Slc12a2 Nkcc1        | Solute carrier family 12 member 2 (Bas  | 0.6399396  | 0.580802 | 1.10182  | 6 | 0.312764 | 0.54        | 0.34        |
| P55096   | Abcd3 Pmp70 Pxm1     | ATP-binding cassette sub-family D mer   | -0.2601357 | 0.154709 | -1.68146 | 8 | 0.13118  | 0.35        | 0.35        |
| P55200   | Kmt2a All1 Hrx Mll 1 | Histone-lysine N-methyltransferase 2A   | -0.060487  | 0.033254 | -1.81895 | 1 | 0.320006 | 0.7         | 0           |
| P55258   | Rab8a Mel Rab8       | Ras-related protein Rab-8A (EC 3.6.5.2  | 0.1345483  | 0.368935 | 0.36469  | 6 | 0.727849 | 0.6         | 0.4         |
| P55264   | Adk                  | Adenosine kinase (AK) (EC 2.7.1.20) (   | -0.0347004 | 0.161617 | -0.21471 | 8 | 0.835367 | 0.275       | 0.275       |
| P55288   | Cdh11 Cad-11         | Cadherin-11 (OSF-4) (Osteoblast cadh    | 0.1261832  | 0.241769 | 0.52192  | 8 | 0.615866 | 0.35        | 0.35        |
| P55821   | Stmn2 Scg10 Scgn1    | Stathmin-2 (Superior cervical ganglion  | 0.7629852  | 0.498407 | 1.53085  | 8 | 0.16434  | 0.375       | 0.375       |
| P55937   | Golga3 Mea2          | Golgin subfamily A member 3 (Golgin-    | 0.0646144  | 0.296187 | 0.21815  | 5 | 0.835933 | 0.6         | 0.3         |
| P56135   | Atp5mf Atp5j2        | ATP synthase subunit f, mitochondrial   | -0.5886875 | 0.628323 | -0.93692 | 8 | 0.376218 | 0.1         | 0.1         |
| P56183   | Rrp1 Nnp1            | Ribosomal RNA processing protein 1 h    | 0.2969711  | 0.430518 | 0.6898   | 8 | 0.509831 | 0.454545455 | 0.454545455 |
| P56212   | Arpp19               | cAMP-regulated phosphoprotein 19 (A     | -0.007624  | 0.089406 | -0.08527 | 8 | 0.934139 | 0.257142857 | 0.257142857 |
| P56213   | Gfer Alr MNCb-0661   | FAD-linked sulfhydryl oxidase ALR (EC   | 0.4862499  | 0.491391 | 0.98954  | 8 | 0.351381 | 0.35        | 0.35        |
| P56375   | Acyp2 Acyp           | Acylphosphatase-2 (EC 3.6.1.7) (Acylp   | -0.7953457 | 0.196085 | -4.05614 | 1 | 0.153883 | 0.7         | 0           |
| P56376   | Acyp1 Acype          | Acylphosphatase-1 (EC 3.6.1.7) (Acylp   | 0.4235239  | 0.325559 | 1.30091  | 8 | 0.229506 | 0.275       | 0.275       |
| P56379   | Atp5mpl Mp68         | ATP synthase subunit ATP5MPL, mitoc     | -0.0667871 | 0.286527 | -0.23309 | 7 | 0.822359 | 0.45        | 0.35        |
| P56380   | Nudt2 Apah1          | Bis(5'-nucleosyl)-tetraphosphatase [as  | -0.0124834 | 0.575826 | -0.02168 | 8 | 0.983235 | 0.314285714 | 0.314285714 |
| P56390   | Cks2                 | Cyclin-dependent kinases regulatory su  | 0.0805731  | 0.199023 | 0.40484  | 8 | 0.696202 | 0.22        | 0.22        |
| P56391   | Cox6b1 Cox6b         | Cytochrome c oxidase subunit 6B1 (C     | 0.1980194  | 0.086948 | 2.27745  | 8 | 0.052279 | 0.057142857 | 0.057142857 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P56395   | Cyb5a Cyb5         | Cytochrome b5                            | 0.007781   | 0.102118 | 0.0762   | 8 | 0.941134 | 0.2         | 0.2         |
| P56480   | Atp5f1b Atp5b      | ATP synthase subunit beta, mitochondr    | 0.1098403  | 0.048958 | 2.24354  | 8 | 0.05512  | 0.151515152 | 0.151515152 |
| P56546   | Ctbp2              | C-terminal-binding protein 2 (CtBP2)     | -0.020687  | 0.091868 | -0.22518 | 8 | 0.827482 | 0.217647059 | 0.217647059 |
| P56564   | Slc1a3 Eaat1 Gmt1  | Excitatory amino acid transporter 1 (G   | -0.4203931 | 0.469264 | -0.89586 | 8 | 0.396485 | 0.12        | 0.12        |
| P56581   | Tdg                | G/T mismatch-specific thymine DNA gl     | 0.4198411  | 0.249811 | 1.68063  | 8 | 0.131343 | 0.355555556 | 0.355555556 |
| P56812   | Pdcd5 Tfar19       | Programmed cell death protein 5 (TF-1    | 0.3738282  | 0.180298 | 2.07339  | 8 | 0.07185  | 0.185714286 | 0.185714286 |
| P56873   | Znrd2 C184l Sssca1 | Protein ZNRD2 (Autoantigen p27 hom       | 0.0615504  | 0.052378 | 1.17513  | 8 | 0.273731 | 0.366666667 | 0.366666667 |
| P56959   | Fus                | RNA-binding protein FUS (Protein pig     | 0.2748427  | 0.293048 | 0.93788  | 8 | 0.375755 | 0.196153846 | 0.196153846 |
| P56960   | Exosc10 Pmscl2     | Exosome complex component 10 (EC         | 0.1345838  | 0.22352  | 0.60211  | 8 | 0.563772 | 0.469230769 | 0.469230769 |
| P57722   | Pcbp3              | Poly(rC)-binding protein 3 (Alpha-CP     | 0.0558803  | 0.206105 | 0.27113  | 8 | 0.793159 | 0.16        | 0.16        |
| P57746   | Atp6v1d Atp6m Vat  | V-type proton ATPase subunit D (V-AT     | 0.2353708  | 0.262847 | 0.89547  | 7 | 0.400281 | 0.233333333 | 0.133333333 |
| P57759   | Erp29              | Endoplasmic reticulum resident protei    | -0.0128615 | 0.141746 | -0.09074 | 8 | 0.929933 | 0.077777778 | 0.077777778 |
| P57784   | Snrpa1             | U2 small nuclear ribonucleoprotein A'    | 0.035251   | 0.230961 | 0.15263  | 8 | 0.882471 | 0.266666667 | 0.266666667 |
| P58021   | Tm9sf2             | Transmembrane 9 superfamily member       | -0.2307179 | 0.160432 | -1.4381  | 8 | 0.18835  | 0.183333333 | 0.183333333 |
| P58044   | Idi1               | Isopentenyl-diphosphate Delta-isomer     | 0.2777964  | 0.279764 | 0.99297  | 8 | 0.349806 | 0.244444444 | 0.244444444 |
| P58252   | Eef2               | Elongation factor 2 (EF-2) (EC 3.6.5.-)  | -0.2148047 | 0.327533 | -0.65583 | 8 | 0.530341 | 0           | 0           |
| P58269-2 | Dpf3 Baf45c Cerd4  | Zinc finger protein DPF3 (BRG1-associ    | 0.1931078  | 0.150933 | 1.27942  | 3 | 0.290727 | 0.5         | 0           |
| P58281-2 | Opa1               | Dynamin-like GTPase OPA1, mitochondr     | 0.180544   | 0.311155 | 0.58024  | 8 | 0.577727 | 0.433333333 | 0.433333333 |
| P58404   | Strn4 Zin          | Striatin-4 (Zinedin)                     | 0.3118643  | 0.179045 | 1.74182  | 8 | 0.119713 | 0.31        | 0.31        |
| P58462   | Foxp1              | Forkhead box protein P1 (Forkhead-rel    | -0.4011236 | 0.359882 | -1.1146  | 6 | 0.307668 | 0.566666667 | 0.366666667 |
| P58468   | Slx9 Fam207a       | Ribosome biogenesis protein SLX9 hom     | 0.5039607  | 0.395675 | 1.27367  | 7 | 0.243438 | 0.5         | 0.4         |
| P58501   | Paxbp1 Gcfc Gcfc1  | PAX3- and PAX7-binding protein 1 (PA     | -0.398671  | 0.408999 | -0.97475 | 7 | 0.362159 | 0.5         | 0.4         |
| P58742   | Aaas               | Aladin (Adracalin)                       | -0.1826283 | 0.142031 | -1.28583 | 8 | 0.234469 | 0.422222222 | 0.422222222 |
| P58854   | Tubgcp3 Gcp3       | Gamma-tubulin complex component 3        | -0.0131458 | 0.238205 | -0.05519 | 5 | 0.958127 | 0.5         | 0.2         |
| P58871   | Tnks1bp1 Kiaa1741  | 182 kDa tankyrase-1-binding protein      | -0.0093898 | 0.210983 | -0.04451 | 8 | 0.965593 | 0.607692308 | 0.607692308 |
| P58929   | Gmeb2              | Glucocorticoid modulatory element-bi     | 0.0424629  | 0.48641  | 0.0873   | 3 | 0.935935 | 0.7         | 0.2         |
| P59016   | Vps33b             | Vacuolar protein sorting-associated pr   | -0.4588932 | 0.78431  | -0.58509 | 1 | 0.662983 | 0.7         | 0           |
| P59017   | Bcl2l13 Mil1       | Bcl-2-like protein 13 (Bcl2-L-13) (Bcl-r | 0.2583709  | 0.318324 | 0.81166  | 8 | 0.440466 | 0.323529412 | 0.323529412 |
| P59114   | Pcif1              | mRNA (2'-O-methyladenosine-N(6)-)-r      | -0.1059008 | 0.289244 | -0.36613 | 3 | 0.738564 | 0.55        | 0.05        |
| Q9JJK7   | Tmod2              | Tropomodulin-2 (Neuronal tropomod        | 0.7232021  | 0.264683 | 2.73233  | 8 | 0.025753 | 0.333333333 | 0.333333333 |
| P59279   | Rab2b              | Ras-related protein Rab-2B (EC 3.6.5.2   | -0.1204902 | 0.208557 | -0.57773 | 7 | 0.581544 | 0.1         | 0           |
| P59325   | Eif5               | Eukaryotic translation initiation factor | 0.3371188  | 0.21867  | 1.54168  | 8 | 0.161722 | 0.277272727 | 0.277272727 |
| P59326   | Ythdf1             | YTH domain-containing family protein     | 0.0609757  | 0.147004 | 0.41479  | 8 | 0.689195 | 0.233333333 | 0.233333333 |
| P59328   | Wdhd1 And1         | WD repeat and HMG-box DNA-binding        | -0.2754887 | 0.244446 | -1.12699 | 8 | 0.292413 | 0.433333333 | 0.433333333 |
| P59708   | Sf3b6 Sf3b14       | Splicing factor 3B subunit 6 (Pre-mRN    | 0.0232944  | 0.176686 | 0.13184  | 8 | 0.898366 | 0.25        | 0.25        |
| P59759   | Mrtfb Mkl2         | Myocardin-related transcription factor   | -0.0466979 | 0.168935 | -0.27643 | 8 | 0.789228 | 0.35        | 0.35        |
| Q9Z266   | Snapin Bloc1s7 Sna | SNARE-associated protein Snapin (Bio     | 0.7059145  | 0.292319 | 2.41488  | 8 | 0.042186 | 0.325       | 0.325       |
| P59941   | Sirt6 Sir2l6       | NAD-dependent protein deacylase sirti    | 0.3938752  | 0.372107 | 1.0585   | 6 | 0.33057  | 0.45        | 0.25        |

|          |                      |                                                       |            |          |          |   |          |             |             |
|----------|----------------------|-------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P59999   | Arpc4 Arc20          | Actin-related protein 2/3 complex subunit 4           | 0.190705   | 0.546285 | 0.34909  | 8 | 0.736029 | 0.35        | 0.35        |
| P60060   | Sec61g               | Protein transport protein Sec61 subunit 1             | -0.5999229 | 0.520636 | -1.15229 | 6 | 0.293037 | 0.25        | 0.05        |
| P60122   | Ruvbl1 Tip49 Tip49i  | RuvB-like 1 (EC 3.6.4.12) (49 kDa TAT)                | 0.1056265  | 0.105796 | 0.99839  | 8 | 0.347326 | 0.181081081 | 0.181081081 |
| P60229   | Eif3e Eif3s6 Int6    | Eukaryotic translation initiation factor 3 subunit 6  | 0.1711464  | 0.218467 | 0.7834   | 8 | 0.455957 | 0.278571429 | 0.278571429 |
| P60335   | Pcbp1                | Poly(rC)-binding protein 1 (Alpha-CP1)                | 0.1340313  | 0.099258 | 1.35034  | 8 | 0.213863 | 0.18125     | 0.18125     |
| P60487   | Pdxp Cin Plp Plpp    | Chronophin (EC 3.1.3.16) (EC 3.1.3.7)                 | 0.1195884  | 0.184319 | 0.64881  | 8 | 0.534636 | 0.4125      | 0.4125      |
| P60521   | Gabarapl2            | Gamma-aminobutyric acid receptor-associated protein 2 | 0.2160126  | 0.195824 | 1.10309  | 8 | 0.30206  | 0.36        | 0.36        |
| P60605   | Ube2g2 Ubc7          | Ubiquitin-conjugating enzyme E2 G2 (H2)               | 0.2240803  | 0.27365  | 0.81886  | 7 | 0.439851 | 0.1         | 0           |
| P60670   | Nploc4 Kiaa1499 Npl4 | Nuclear protein localization protein 4 homolog 1      | 0.3435794  | 0.178777 | 1.92183  | 8 | 0.090859 | 0.46875     | 0.46875     |
| P60762   | Morf4l1 Mrg15 Tex1   | Mortality factor 4-like protein 1 (MORF4L1)           | -0.2161074 | 0.193583 | -1.11636 | 8 | 0.296675 | 0.533333333 | 0.533333333 |
| P60766-1 | Cdc42                | Cell division control protein 42 homolog 1            | 0.3488129  | 0.179423 | 1.94408  | 8 | 0.087791 | 0           | 0           |
| P60824   | Cirbp Cirp           | Cold-inducible RNA-binding protein (A)                | 0.2287909  | 0.398715 | 0.57382  | 8 | 0.581858 | 0.1         | 0.1         |
| P60840   | Ensa                 | Alpha-endosulfine (ARPP-19e)                          | 0.2585379  | 0.539163 | 0.47952  | 8 | 0.644405 | 0.3125      | 0.3125      |
| P60843   | Eif4a1 Ddx2a Eif4a   | Eukaryotic initiation factor 4A-I (eIF-4A)            | -0.0171663 | 0.10569  | -0.16242 | 8 | 0.875001 | 0.204651163 | 0.204651163 |
| P60853   | Lzts1 Fez1           | Leucine zipper putative tumor suppressor 1            | -0.6663432 | 0.208249 | -3.19974 | 1 | 0.192837 | 0.7         | 0           |
| P60867   | Rps20                | Small ribosomal subunit protein uS10                  | -0.0866734 | 0.224292 | -0.38643 | 8 | 0.709253 | 0.254545455 | 0.254545455 |
| P60879   | Snap25 Snap          | Synaptosomal-associated protein 25 (SNAP25)           | 0.3245681  | 0.307833 | 1.05436  | 3 | 0.369128 | 0.5         | 0           |
| P60898   | Polr2i               | DNA-directed RNA polymerase II subunit 2              | 0.6788638  | 0.34095  | 1.9911   | 8 | 0.081634 | 0.5375      | 0.5375      |
| P60904   | Dnajc5 Cspalpha      | DnaJ homolog subfamily C member 5 (DnaJ)              | 0.2637473  | 0.329914 | 0.79944  | 8 | 0.447118 | 0.3         | 0.3         |
| P61021   | Rab5b                | Ras-related protein Rab-5B (EC 3.6.5.2)               | 0.1060972  | 0.258895 | 0.40981  | 8 | 0.692701 | 0.333333333 | 0.333333333 |
| P61022   | Chp1 Chp Sid470      | Calcineurin B homologous protein 1 (CHP1)             | 0.2915033  | 0.553748 | 0.52642  | 8 | 0.612876 | 0.3         | 0.3         |
| P61025   | Cks1b Cks1 Sid133    | Cyclin-dependent kinases regulatory subunit 1         | 0.2144323  | 0.327624 | 0.65451  | 8 | 0.531147 | 0.433333333 | 0.433333333 |
| P61027   | Rab10                | Ras-related protein Rab-10 (EC 3.6.5.2)               | 0.0019364  | 0.253747 | 0.00763  | 8 | 0.994098 | 0.2         | 0.2         |
| P61028   | Rab8b                | Ras-related protein Rab-8B                            | 0.0580759  | 0.439704 | 0.13208  | 8 | 0.898183 | 0           | 0           |
| P61079   | Ube2d3               | Ubiquitin-conjugating enzyme E2 D3 (H2)               | 0.543752   | 0.50157  | 1.0841   | 8 | 0.309908 | 0.2         | 0.2         |
| P61080   | Ube2d1               | Ubiquitin-conjugating enzyme E2 D1 (H2)               | 0.8082767  | 0.551721 | 1.46501  | 8 | 0.181081 | 0.133333333 | 0.133333333 |
| P61082   | Ube2m Ubc-rs2 Ubr1   | NEDD8-conjugating enzyme Ubc12 (E2)                   | 0.0214474  | 0.130139 | 0.1648   | 8 | 0.873186 | 0.109090909 | 0.109090909 |
| P61087   | Ube2k Hip2           | Ubiquitin-conjugating enzyme E2 K (E2)                | 0.1955021  | 0.098606 | 1.98266  | 8 | 0.082707 | 0.214285714 | 0.214285714 |
| P61089   | Ube2n Blu            | Ubiquitin-conjugating enzyme E2 N (E2)                | 0.1917142  | 0.114322 | 1.67696  | 8 | 0.132073 | 0.157142857 | 0.157142857 |
| P61161   | Actr2 Arp2           | Actin-related protein 2 (Actin-like protein 2)        | -0.0241881 | 0.215066 | -0.11247 | 8 | 0.913223 | 0.275       | 0.275       |
| P61164   | Actr1a Ctrn1         | Alpha-centractin (Centractin) (ARP1) (Centractin)     | -0.0189632 | 0.092944 | -0.20403 | 8 | 0.843426 | 0.172727273 | 0.172727273 |
| P61202   | Cops2 Csn2 Trip15    | COP9 signalosome complex subunit 2                    | 0.004658   | 0.141655 | 0.03288  | 8 | 0.974574 | 0.342857143 | 0.342857143 |
| P61211   | Arl1                 | ADP-ribosylation factor-like protein 1                | -0.1137146 | 0.352465 | -0.32263 | 8 | 0.755249 | 0.466666667 | 0.466666667 |
| P61219   | Polr2f               | DNA-directed RNA polymerases I, II, and III           | 0.3743934  | 0.686439 | 0.54541  | 2 | 0.640167 | 0.6         | 0           |
| P61222   | Abce1 Rli            | ATP-binding cassette sub-family E member 1            | -0.160126  | 0.122771 | -1.30426 | 8 | 0.228416 | 0.157894737 | 0.157894737 |
| P61226   | Rap2b                | Ras-related protein Rap-2b (EC 3.6.5.2)               | 0.4052445  | 0.351958 | 1.1514   | 7 | 0.287372 | 0.35        | 0.25        |
| P61255   | Rpl26                | Large ribosomal subunit protein uL24                  | 0.2096914  | 0.241194 | 0.86939  | 8 | 0.409959 | 0           | 0           |
| P61264   | Stx1b Stx1b1 Stx1t   | Syntaxin-1B                                           | 0.6902984  | 0.503516 | 1.37096  | 8 | 0.207613 | 0.55        | 0.55        |

|          |                   |                                         |            |          |          |   |          |             |             |
|----------|-------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P61290   | Psme3             | Proteasome activator complex subunit    | 0.4905892  | 0.215381 | 2.27778  | 8 | 0.052252 | 0.266666667 | 0.266666667 |
| P61294   | Rab6b D9Bwg0185   | Ras-related protein Rab-6B (EC 3.6.5.2  | 0.1214071  | 0.413061 | 0.29392  | 6 | 0.778721 | 0.45        | 0.25        |
| P61358   | Rpl27             | Large ribosomal subunit protein eL27 (  | 0.0240917  | 0.285281 | 0.08445  | 8 | 0.934775 | 0.242857143 | 0.242857143 |
| P61458   | Pcbd1 Dcoh Pcbd   | Pterin-4-alpha-carbinolamine dehydrat   | 0.805912   | 0.493975 | 1.63148  | 8 | 0.141434 | 0           | 0           |
| P61514   | Rpl37a            | Large ribosomal subunit protein eL43 (  | 0.4034253  | 0.586547 | 0.6878   | 8 | 0.511026 | 0.116666667 | 0.116666667 |
| P61588   | Rnd3 Arhe Rhoe    | Rho-related GTP-binding protein RhoE    | 0.330284   | 0.653553 | 0.50537  | 5 | 0.634784 | 0.566666667 | 0.266666667 |
| P61620   | Sec61a1 Sec61a    | Protein transport protein Sec61 subur   | 0.8226863  | 0.606658 | 1.3561   | 8 | 0.212101 | 0.3         | 0.3         |
| P61750   | Arf4              | ADP-ribosylation factor 4               | -0.9956887 | 0.83304  | -1.19525 | 8 | 0.266217 | 0.285714286 | 0.285714286 |
| P61759   | Vbp1 Pfdn3        | Prefoldin subunit 3 (von Hippel-Lindai  | 0.5213739  | 0.259981 | 2.00543  | 8 | 0.079842 | 0.141666667 | 0.141666667 |
| P61793   | Lpar1 Edg2 Gpcr26 | Lysophosphatidic acid receptor 1 (LPA   | 0.7915943  | 0.143934 | 5.49971  | 1 | 0.114504 | 0.7         | 0           |
| P61804   | Dad1              | Dolichyl-diphosphooligosaccharide--p    | -1.687514  | 0.761996 | -2.2146  | 3 | 0.113614 | 0.566666667 | 0.066666667 |
| P61922   | Abat Gabat        | 4-aminobutyrate aminotransferase, mi    | 1.0011003  | 0.428716 | 2.33511  | 5 | 0.066785 | 0.533333333 | 0.233333333 |
| P61924   | Copz1 Copz        | Coatomer subunit zeta-1 (Zeta-1-coat    | -1.0380374 | 0.741872 | -1.39921 | 8 | 0.199306 | 0.5         | 0.5         |
| P61957   | Sumo2 Smt3b Smt3  | Small ubiquitin-related modifier 2 (SUI | 0.3183494  | 0.714137 | 0.44578  | 8 | 0.667572 | 0.4         | 0.4         |
| Q9Z1G4   | Atp6v0a1 Atp6n1   | V-type proton ATPase 116 kDa subuni     | 0.7056652  | 0.260755 | 2.70623  | 8 | 0.026814 | 0.516666667 | 0.516666667 |
| P61963   | Dcaf7 Han11 Wdr68 | DDB1- and CUL4-associated factor 7 (    | 0.138294   | 0.112298 | 1.23149  | 8 | 0.253109 | 0.484615385 | 0.484615385 |
| P61965   | Wdr5 Big Big3     | WD repeat-containing protein 5 (BMP2    | 0.1096523  | 0.22227  | 0.49333  | 8 | 0.635037 | 0.388888889 | 0.388888889 |
| P61967   | Ap1s1 Ap19        | AP-1 complex subunit sigma-1A (Adap     | -0.0208779 | 0.355432 | -0.05874 | 5 | 0.955435 | 0.5         | 0.2         |
| P61969   | Lmo4              | LIM domain transcription factor LMO4    | 0.1074723  | 1.300152 | 0.08266  | 1 | 0.947496 | 0.7         | 0           |
| P61971   | Nutf2 Ntf2        | Nuclear transport factor 2 (NTF-2)      | -0.1256732 | 0.46762  | -0.26875 | 8 | 0.794922 | 0.266666667 | 0.266666667 |
| P61979-2 | Hnrnpk Hnrpk      | Heterogeneous nuclear ribonucleopro     | -0.1086171 | 0.231965 | -0.46825 | 8 | 0.6521   | 0.08        | 0.08        |
| P61982   | Ywhag             | 14-3-3 protein gamma [Cleaved into: 1   | 0.5596101  | 0.322964 | 1.73273  | 8 | 0.121377 | 0.22        | 0.22        |
| P62071   | Rras2             | Ras-related protein R-Ras2 (EC 3.6.5.-) | 0.0323589  | 0.053135 | 0.609    | 8 | 0.559417 | 0.233333333 | 0.233333333 |
| P62073   | Timm10 Tim10      | Mitochondrial import inner membrane     | -0.060407  | 0.469205 | -0.12874 | 2 | 0.90934  | 0.6         | 0           |
| P62075   | Timm13 Tim13a Tim | Mitochondrial import inner membrane     | 0.1108068  | 0.503506 | 0.22007  | 8 | 0.831328 | 0.271428571 | 0.271428571 |
| P62077   | Timm8b Ddp2 Tim8  | Mitochondrial import inner membrane     | -0.7842825 | 0.403505 | -1.94367 | 7 | 0.09303  | 0.266666667 | 0.166666667 |
| P62082   | Rps7              | Small ribosomal subunit protein eS7 (   | 0.2139238  | 0.21789  | 0.9818   | 8 | 0.354955 | 0.239130435 | 0.239130435 |
| P62137   | Ppp1ca Ppp1a      | Serine/threonine-protein phosphatase    | 0.4509572  | 0.390702 | 1.15422  | 8 | 0.281722 | 0.233333333 | 0.233333333 |
| P62141   | Ppp1cb            | Serine/threonine-protein phosphatase    | 0.2094068  | 0.127018 | 1.64864  | 8 | 0.137832 | 0.2         | 0.2         |
| P62192   | Psmc1             | 26S proteasome regulatory subunit 4 (   | 0.2970766  | 0.194091 | 1.5306   | 8 | 0.164399 | 0.232352941 | 0.232352941 |
| P62196   | Psmc5 Sug1        | 26S proteasome regulatory subunit 8 (   | 0.1966155  | 0.222921 | 0.882    | 8 | 0.403501 | 0.178378378 | 0.178378378 |
| P62242   | Rps8              | Small ribosomal subunit protein eS8 (   | -0.0208401 | 0.294459 | -0.07077 | 8 | 0.945315 | 0.223809524 | 0.223809524 |
| P62245   | Rps15a            | Small ribosomal subunit protein uS8 (   | -0.0737341 | 0.181151 | -0.40703 | 8 | 0.694657 | 0.275       | 0.275       |
| P62254   | Ube2g1 Ube2g      | Ubiquitin-conjugating enzyme E2 G1 (    | 0.4454985  | 0.234693 | 1.89822  | 8 | 0.094227 | 0.3125      | 0.3125      |
| P62257   | Ube2h             | Ubiquitin-conjugating enzyme E2 H (E    | -0.1647494 | 0.263868 | -0.62436 | 8 | 0.549776 | 0.2         | 0.2         |
| P62259   | Ywhae             | 14-3-3 protein epsilon (14-3-3E)        | 0.4724905  | 0.657662 | 0.71844  | 8 | 0.492932 | 0.219230769 | 0.219230769 |
| P62264   | Rps14             | Small ribosomal subunit protein uS11    | 0.2501383  | 0.177373 | 1.41024  | 8 | 0.196145 | 0.195238095 | 0.195238095 |
| P62267   | Rps23             | Small ribosomal subunit protein uS12    | -0.3559368 | 0.224672 | -1.58425 | 8 | 0.151795 | 0           | 0           |

|          |                       |                                          |            |          |          |   |          |             |             |
|----------|-----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P62270   | Rps18                 | Small ribosomal subunit protein uS13     | 0.2864515  | 0.346146 | 0.82754  | 8 | 0.431919 | 0.18        | 0.18        |
| P62274   | Rps29                 | Small ribosomal subunit protein uS14     | 0.8005245  | 0.61335  | 1.30517  | 8 | 0.228122 | 0.075       | 0.075       |
| P62281   | Rps11                 | Small ribosomal subunit protein uS17     | 0.1871368  | 0.358472 | 0.52204  | 8 | 0.615784 | 0.121428571 | 0.121428571 |
| P62301   | Rps13                 | Small ribosomal subunit protein uS15     | -0.2226672 | 0.287856 | -0.77354 | 8 | 0.461448 | 0.375       | 0.375       |
| P62305   | Snrpe                 | Small nuclear ribonucleoprotein E (snF   | 0.5213018  | 0.505216 | 1.03184  | 8 | 0.33233  | 0.24        | 0.24        |
| P62307   | Snrpf                 | Small nuclear ribonucleoprotein F (snF   | -0.8927018 | 1.061927 | -0.84064 | 8 | 0.424959 | 0.45        | 0.45        |
| P62309   | Snrpg                 | Small nuclear ribonucleoprotein G (snl   | 0.1081145  | 0.421021 | 0.25679  | 8 | 0.803821 | 0.066666667 | 0.066666667 |
| P62311   | Lsm3                  | U6 snRNA-associated Sm-like protein l    | 0.0079423  | 0.220224 | 0.03606  | 7 | 0.972238 | 0.6         | 0.5         |
| P62313   | Lsm6                  | U6 snRNA-associated Sm-like protein l    | 0.6703406  | 0.752376 | 0.89096  | 8 | 0.398951 | 0.3         | 0.3         |
| P62315   | Snrpd1                | Small nuclear ribonucleoprotein Sm D:    | 0.036835   | 0.367481 | 0.10024  | 8 | 0.922623 | 0.211111111 | 0.211111111 |
| P62317   | Snrpd2                | Small nuclear ribonucleoprotein Sm D:    | 0.2855234  | 0.153487 | 1.86024  | 8 | 0.099894 | 0.247058824 | 0.247058824 |
| P62320   | Snrpd3                | Small nuclear ribonucleoprotein Sm D:    | 0.0246107  | 0.141344 | 0.17412  | 8 | 0.866097 | 0.211111111 | 0.211111111 |
| P62322   | Lsm5                  | U6 snRNA-associated Sm-like protein l    | -0.6299294 | 0.833478 | -0.75578 | 8 | 0.471444 | 0.425       | 0.425       |
| P62331   | Arf6                  | ADP-ribosylation factor 6 (EC 3.6.5.2)   | 0.220598   | 0.380903 | 0.57914  | 8 | 0.57843  | 0.3         | 0.3         |
| P62334   | Psmc6 Sug2            | 26S proteasome regulatory subunit 10     | 0.3132425  | 0.1778   | 1.76177  | 8 | 0.116134 | 0.239393939 | 0.239393939 |
| P62340   | Tbpl1 Tlf Tlp Tlp21 T | TATA box-binding protein-like 1 (TBP-li  | 0.1908736  | 0.234439 | 0.81417  | 8 | 0.439108 | 0.433333333 | 0.433333333 |
| P62342   | Selenot Selt          | Thioredoxin reductase-like selenoprote   | -0.2427645 | 0.36239  | -0.6699  | 1 | 0.624244 | 0.7         | 0           |
| P62484   | Abi2                  | Abl interactor 2 (Abelson interactor 2)  | 0.5029704  | 0.357927 | 1.40523  | 8 | 0.197575 | 0.342857143 | 0.342857143 |
| P62488   | Polr2g                | DNA-directed RNA polymerase II subur     | 0.015415   | 0.179877 | 0.0857   | 8 | 0.933813 | 0.2         | 0.2         |
| P62492   | Rab11a Rab11          | Ras-related protein Rab-11A (Rab-11)     | 1.2339153  | 0.930747 | 1.32573  | 5 | 0.242268 | 0.65        | 0.35        |
| P62500-2 | Tsc22d1 Kiaa1994 T    | TSC22 domain family protein 1 (Regul     | -0.4879398 | 0.320867 | -1.52069 | 4 | 0.202978 | 0.4         | 0           |
| P62627   | Dynlrb1 Dncl2a Dnl    | Dynein light chain roadblock-type 1 (D   | 0.11105218 | 0.133781 | 0.82614  | 8 | 0.43267  | 0.225       | 0.225       |
| P62631   | Eef1a2 Eef1al Stn     | Elongation factor 1-alpha 2 (EF-1-alph   | 0.5338237  | 0.466459 | 1.14442  | 8 | 0.285534 | 0.466666667 | 0.466666667 |
| P62700   | Ypel5                 | Protein yippee-like 5                    | 0.4143721  | 0.239046 | 1.73344  | 7 | 0.126614 | 0.1         | 0           |
| P62702   | Rps4x Rps4            | Small ribosomal subunit protein eS4 (    | 0.0697035  | 0.393971 | 0.17693  | 8 | 0.863964 | 0.228125    | 0.228125    |
| P62715   | Ppp2cb                | Serine/threonine-protein phosphatase     | -0.1061892 | 0.232148 | -0.45742 | 8 | 0.659535 | 0.1         | 0.1         |
| P62717   | Rpl18a                | Large ribosomal subunit protein eL20 (   | -0.3089467 | 0.512759 | -0.60252 | 8 | 0.563514 | 0.3         | 0.3         |
| P62743   | Ap2s1 Ap17 Claps2     | AP-2 complex subunit sigma (Adaptor      | 0.485127   | 0.88717  | 0.54683  | 1 | 0.681434 | 0.7         | 0           |
| P62746   | Rhob Arhb             | Rho-related GTP-binding protein Rhob     | -0.1206601 | 0.278957 | -0.43254 | 8 | 0.676773 | 0.516666667 | 0.516666667 |
| P62748   | Hpcal1                | Hippocalcin-like protein 1 (Neural visin | -0.1551773 | 0.167777 | -0.9249  | 8 | 0.38207  | 0.328571429 | 0.328571429 |
| P62751   | Rpl23a                | Large ribosomal subunit protein uL23     | 0.3264857  | 0.370736 | 0.88064  | 8 | 0.40419  | 0.258823529 | 0.258823529 |
| P62754   | Rps6                  | Small ribosomal subunit protein eS6 (    | 0.1460082  | 0.176987 | 0.82496  | 8 | 0.4333   | 0.330769231 | 0.330769231 |
| P62774   | Mtpn Gcdp             | Myotrophin (Granule cell differentiatio  | 0.2010148  | 0.276911 | 0.72592  | 8 | 0.488579 | 0.2         | 0.2         |
| P62806   | H4c1 Hist1h4a; H4c    | Histone H4                               | 0.2201307  | 0.744959 | 0.29549  | 8 | 0.775141 | 0.23        | 0.23        |
| P62814   | Atp6v1b2 Atp6b2 V     | V-type proton ATPase subunit B, brain    | 0.2317774  | 0.145769 | 1.59003  | 8 | 0.150491 | 0.284848485 | 0.284848485 |
| P62823   | Rab3c                 | Ras-related protein Rab-3C               | 0.5750459  | 0.30336  | 1.89559  | 3 | 0.154301 | 0.65        | 0.15        |
| P62827   | Ran Rasl2-8           | GTP-binding nuclear protein Ran (EC 3    | -0.080498  | 0.167308 | -0.48114 | 8 | 0.643302 | 0.217391304 | 0.217391304 |
| P62830   | Rpl23                 | Large ribosomal subunit protein uL14     | 0.2137808  | 0.295711 | 0.72294  | 8 | 0.490311 | 0.278571429 | 0.278571429 |

|        |                     |                                           |            |          |          |   |          |             |             |
|--------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P62835 | Rap1a Krev-1        | Ras-related protein Rap-1A (EC 3.6.5.2    | -0.1871426 | 0.357124 | -0.52403 | 7 | 0.616437 | 0.3         | 0.2         |
| Q91YE3 | Egln1               | Egln nine homolog 1 (EC 1.14.11.29) (H    | 0.7021387  | 0.267597 | 2.62387  | 5 | 0.046879 | 0.66        | 0.36        |
| P62849 | Rps24               | Small ribosomal subunit protein eS24      | 0.1672082  | 0.228066 | 0.73316  | 8 | 0.484389 | 0.157142857 | 0.157142857 |
| P62852 | Rps25               | Small ribosomal subunit protein eS25      | 0.0864379  | 0.538917 | 0.16039  | 8 | 0.876549 | 0.327272727 | 0.327272727 |
| P62855 | Rps26               | Small ribosomal subunit protein eS26      | 0.2366163  | 0.559206 | 0.42313  | 8 | 0.683346 | 0.242857143 | 0.242857143 |
| P62858 | Rps28               | Small ribosomal subunit protein eS28      | 0.1925991  | 0.217327 | 0.88622  | 8 | 0.401355 | 0.32        | 0.32        |
| P62862 | Fau                 | Ubiquitin-like FUBI-ribosomal protein e   | 0.091781   | 0.37502  | 0.24474  | 8 | 0.812821 | 0.25        | 0.25        |
| P62869 | Elob Tceb2          | Elongin-B (EloB) (Elongin 18 kDa subu     | 0.2246239  | 0.222192 | 1.01095  | 8 | 0.341638 | 0.213333333 | 0.213333333 |
| P62874 | Gnb1                | Guanine nucleotide-binding protein G      | 0.2298548  | 0.233412 | 0.98476  | 8 | 0.353583 | 0.245454545 | 0.245454545 |
| P62878 | Rbx1                | E3 ubiquitin-protein ligase RBX1 (EC 2    | 0.8404143  | 0.515341 | 1.63079  | 8 | 0.14158  | 0.2         | 0.2         |
| P62880 | Gnb2                | Guanine nucleotide-binding protein G      | 0.0488016  | 0.17531  | 0.27837  | 8 | 0.787786 | 0.152941176 | 0.152941176 |
| P62889 | Rpl30               | Large ribosomal subunit protein eL30 (    | -0.1058088 | 0.153631 | -0.68872 | 8 | 0.510475 | 0.166666667 | 0.166666667 |
| P62892 | Rpl39               | Large ribosomal subunit protein eL39 (    | -0.0957776 | 0.279924 | -0.34216 | 8 | 0.741049 | 0.25        | 0.25        |
| P62897 | Cycc                | Cytochrome c, somatic                     | 0.1131157  | 0.118193 | 0.95705  | 8 | 0.366568 | 0.163636364 | 0.163636364 |
| P62900 | Rpl31               | Large ribosomal subunit protein eL31 (    | -0.2427059 | 0.131254 | -1.84914 | 8 | 0.101611 | 0.3         | 0.3         |
| P62908 | Rps3                | Small ribosomal subunit protein uS3 (     | -0.0432191 | 0.278701 | -0.15507 | 8 | 0.880605 | 0.232258065 | 0.232258065 |
| P62911 | Rpl32               | Large ribosomal subunit protein eL32 (    | 0.2292348  | 0.349527 | 0.65584  | 8 | 0.530331 | 0.185714286 | 0.185714286 |
| P62915 | Gtf2b               | Transcription initiation factor IIB (EC 2 | -0.0816325 | 0.230908 | -0.35353 | 8 | 0.732828 | 0.338461538 | 0.338461538 |
| P62918 | Rpl8                | Large ribosomal subunit protein uL2 (E    | 0.1532167  | 0.244063 | 0.62777  | 8 | 0.547648 | 0.342105263 | 0.342105263 |
| P62960 | Ybx1 Msy-1 Msy1 Ns  | Y-box-binding protein 1 (YB-1) (CCAA      | 0.175626   | 0.369654 | 0.47511  | 8 | 0.64741  | 0.266666667 | 0.266666667 |
| P62962 | Pfn1                | Profilin-1 (Profilin I)                   | 0.1370782  | 0.188135 | 0.72862  | 8 | 0.487015 | 0.240909091 | 0.240909091 |
| P62965 | Crabp1              | Cellular retinoic acid-binding protein 1  | 0.2848593  | 0.45237  | 0.6297   | 8 | 0.546448 | 0.416666667 | 0.416666667 |
| P62983 | Rps27a Uba80 Ubc    | Ubiquitin-ribosomal protein eS31 fusi     | 0.174915   | 0.264922 | 0.66025  | 8 | 0.527642 | 0.208695652 | 0.208695652 |
| P62996 | Tra2b Sfrs10 Silg41 | Transformer-2 protein homolog beta (      | 0.1451128  | 0.213681 | 0.67911  | 8 | 0.516231 | 0.192307692 | 0.192307692 |
| P63001 | Rac1                | Ras-related C3 botulinum toxin substr     | -0.0604588 | 0.389155 | -0.15536 | 8 | 0.880386 | 0.24        | 0.24        |
| P63002 | Tle5 Aes Esp1 Grg G | TLE family member 5 (Amino-terminal e     | -0.3861717 | 0.404319 | -0.95512 | 8 | 0.367485 | 0.375       | 0.375       |
| P63005 | Pafah1b1 Lis-1 Lis1 | Platelet-activating factor acetylhydrola  | -0.0910978 | 0.096363 | -0.94536 | 8 | 0.372146 | 0.2         | 0.2         |
| P63011 | Rab3a               | Ras-related protein Rab-3A                | 0.3448638  | 0.404814 | 0.85191  | 8 | 0.419036 | 0.25        | 0.25        |
| P63015 | Pax6 Pax-6 Sey      | Paired box protein Pax-6 (Oculorhomot     | -0.3709355 | 0.307277 | -1.20717 | 8 | 0.261844 | 0.48        | 0.48        |
| P63017 | Hspa8 Hsc70 Hsc70   | Heat shock cognate 71 kDa protein (EC     | 0.1219247  | 0.252433 | 0.483    | 8 | 0.642037 | 0.286458333 | 0.286458333 |
| P63024 | Vamp3 Syb3          | Vesicle-associated membrane protein 3     | -0.3567024 | 0.345854 | -1.03137 | 3 | 0.378234 | 0.5         | 0           |
| P63028 | Tpt1 Trt            | Translationally-controlled tumor prote    | 0.5590038  | 0.493145 | 1.13355  | 8 | 0.289809 | 0.206666667 | 0.206666667 |
| P63030 | Mpc1 Brp44l         | Mitochondrial pyruvate carrier 1 (Brain   | 0.4918957  | 0.048321 | 10.1798  | 1 | 0.062338 | 0.7         | 0           |
| P63037 | Dnaja1 Dnaj2 Hsj2 H | DnaJ homolog subfamily A member 1 (       | 0.2315259  | 0.144521 | 1.60202  | 8 | 0.147819 | 0.21        | 0.21        |
| P63038 | Hspd1 Hsp60         | 60 kDa heat shock protein, mitochond      | 0.2030039  | 0.187927 | 1.08023  | 8 | 0.311527 | 0.248148148 | 0.248148148 |
| P63044 | Vamp2 Syb2          | Vesicle-associated membrane protein 2     | 0.2486438  | 0.39252  | 0.63345  | 7 | 0.546568 | 0.35        | 0.25        |
| Q8VE33 | Gdap1l1 Gdap1l      | Ganglioside-induced differentiation-as    | 0.699007   | 0.199922 | 3.49641  | 8 | 0.008122 | 0.3         | 0.3         |
| P63085 | Mapk1 Erk2 Mapk Pr  | Mitogen-activated protein kinase 1 (MA    | 0.2059149  | 0.110637 | 1.86118  | 8 | 0.09975  | 0.308333333 | 0.308333333 |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P63087-2 | Ppp1cc              | Serine/threonine-protein phosphatase     | 0.1783733  | 0.338405 | 0.5271   | 8 | 0.612423 | 0.28        | 0.28        |
| P63094   | Gnas Gnas1 MNCb-    | Guanine nucleotide-binding protein G     | -0.117355  | 0.181425 | -0.64685 | 8 | 0.535841 | 0.316666667 | 0.316666667 |
| P63101   | Ywhaz               | 14-3-3 protein zeta/delta (Protein kina  | 0.4607529  | 0.272884 | 1.68846  | 8 | 0.129799 | 0.219444444 | 0.219444444 |
| P63147   | Ube2b Rad6b         | Ubiquitin-conjugating enzyme E2 B (E     | -0.0530035 | 0.245731 | -0.2157  | 7 | 0.835374 | 0.1         | 0           |
| P63154   | Crnk1l              | Crooked neck-like protein 1 (Crooked     | -0.1113314 | 0.123779 | -0.89944 | 8 | 0.394687 | 0.48        | 0.48        |
| P63158   | Hmgb1 Hmg-1 Hmg     | High mobility group protein B1 (High r   | 0.0425721  | 0.145118 | 0.29336  | 8 | 0.776712 | 0.231111111 | 0.231111111 |
| P63166   | Sumo1 Smt3c Smt3    | Small ubiquitin-related modifier 1 (SUI  | 0.0972097  | 0.235253 | 0.41321  | 8 | 0.690304 | 0.283333333 | 0.283333333 |
| P63168   | Dynll1 Dlc1 Dncl1 D | Dynein light chain 1, cytoplasmic (8 kD  | 0.2136758  | 0.638172 | 0.33482  | 8 | 0.746367 | 0.05        | 0.05        |
| P63213   | Gng2                | Guanine nucleotide-binding protein G     | -0.5287856 | 0.7855   | -0.67318 | 8 | 0.5198   | 0.328571429 | 0.328571429 |
| P63216   | Gng3 Gngt3          | Guanine nucleotide-binding protein G     | -0.0874023 | 0.324759 | -0.26913 | 3 | 0.805278 | 0.5         | 0           |
| P63242   | Eif5a               | Eukaryotic translation initiation factor | -0.0267018 | 0.105863 | -0.25223 | 8 | 0.807223 | 0.162962963 | 0.162962963 |
| Q5EBG8   |                     | Uncharacterized protein C1orf50 hom      | 0.6971803  | 0.283319 | 2.46076  | 8 | 0.039272 | 0.48        | 0.48        |
| P63276   | Rps17               | Small ribosomal subunit protein eS17     | 0.0671962  | 0.186867 | 0.35959  | 8 | 0.728458 | 0.157142857 | 0.157142857 |
| P22599   | Serpina1b Aat2 Dor  | Alpha-1-antitrypsin 1-2 (AAT) (Alpha-1   | 0.6944473  | 0.217026 | 3.19983  | 7 | 0.015069 | 0.2         | 0.1         |
| P63321   | Rala Ral Ral-a      | Ras-related protein Ral-A (EC 3.6.5.2)   | -0.2457667 | 0.137067 | -1.79304 | 8 | 0.110724 | 0           | 0           |
| P63323   | Rps12               | Small ribosomal subunit protein eS12     | 0.2358329  | 0.179507 | 1.31378  | 8 | 0.225341 | 0.175       | 0.175       |
| P63325   | Rps10               | Small ribosomal subunit protein eS10     | -0.6371531 | 0.355314 | -1.79321 | 8 | 0.110696 | 0           | 0           |
| P63328   | Ppp3ca Calna        | Protein phosphatase 3 catalytic subun    | 0.1945211  | 0.482463 | 0.40318  | 8 | 0.697374 | 0.371428571 | 0.371428571 |
| P63330   | Ppp2ca              | Serine/threonine-protein phosphatase     | 0.4053535  | 0.458234 | 0.8846   | 4 | 0.426342 | 0.45        | 0.05        |
| P67778   | Phb1 Phb            | Prohibitin 1 (B-cell receptor-associat   | 0.3014418  | 0.482316 | 0.62499  | 8 | 0.549386 | 0.222727273 | 0.222727273 |
| P67871   | Csnk2b Ck2n         | Casein kinase II subunit beta (CK II bet | 0.2265243  | 0.227995 | 0.99355  | 8 | 0.34954  | 0.215384615 | 0.215384615 |
| P67984   | Rpl22               | Large ribosomal subunit protein eL22 (   | -0.1178167 | 0.156361 | -0.75349 | 8 | 0.472745 | 0.083333333 | 0.083333333 |
| P68037   | Ube2l3 Ubce7        | Ubiquitin-conjugating enzyme E2 L3 (E    | 0.26914    | 0.165892 | 1.62238  | 8 | 0.143378 | 0.155555556 | 0.155555556 |
| P68040   | Rack1 Gnb2-rs1 Gn   | Small ribosomal subunit protein RACK     | 0.0069225  | 0.072852 | 0.09502  | 8 | 0.926635 | 0.183333333 | 0.183333333 |
| Q8BNU0   | Armc6               | Armadillo repeat-containing protein 6    | 0.6859775  | 0.255245 | 2.68753  | 8 | 0.027602 | 0.3         | 0.3         |
| P68254   | Ywhaq               | 14-3-3 protein theta (14-3-3 protein t   | 0.4376056  | 0.25694  | 1.70314  | 8 | 0.126948 | 0.155172414 | 0.155172414 |
| P68369   | Tuba1a Tuba1        | Tubulin alpha-1A chain (EC 3.6.5.-) (A   | 0.4456002  | 0.269233 | 1.65507  | 8 | 0.136504 | 0           | 0           |
| P68372   | Tubb4b Tubb2c       | Tubulin beta-4B chain (Tubulin beta-2    | 0.0871928  | 0.167075 | 0.52188  | 8 | 0.615892 | 0.1         | 0.1         |
| P68373   | Tuba1c Tuba6        | Tubulin alpha-1C chain (EC 3.6.5.-) (A   | 0.1524573  | 0.556158 | 0.27413  | 7 | 0.791901 | 0.1         | 0           |
| P68433   | H3c1 H3a Hist1h3a   | Histone H3.1                             | 0.5043846  | 0.340569 | 1.481    | 8 | 0.17688  | 0.228571429 | 0.228571429 |
| P68510   | Ywhah               | 14-3-3 protein eta                       | 0.8489967  | 0.670043 | 1.26708  | 8 | 0.240767 | 0.265       | 0.265       |
| P69566   | Ranbp9 Ranbpm       | Ran-binding protein 9 (RanBP9) (B-cel    | 0.1644283  | 0.199431 | 0.82449  | 8 | 0.433556 | 0.3875      | 0.3875      |
| O35984   | Pbx2                | Pre-B-cell leukemia transcription factor | 0.6828939  | 0.171892 | 3.97281  | 3 | 0.028513 | 0.65        | 0.15        |
| P70168   | Kpnb1 Impnb         | Importin subunit beta-1 (Karyopherin     | 0.2136812  | 0.20891  | 1.02284  | 8 | 0.336316 | 0.254320988 | 0.254320988 |
| P70175   | Dlg3 Dlgh3          | Disks large homolog 3 (Synapse-assoc     | 0.4094537  | 0.19691  | 2.0794   | 8 | 0.071182 | 0.466666667 | 0.466666667 |
| P70178   | Six5 Dmahp          | Homeobox protein SIX5 (DM locus-ass      | -0.5472308 | 0.394327 | -1.38776 | 1 | 0.397511 | 0.7         | 0           |
| P70182   | Pip5k1a             | Phosphatidylinositol 4-phosphate 5-k     | -0.6912293 | 0.641907 | -1.07684 | 2 | 0.394191 | 0.6         | 0           |
| P70188   | Kifap3              | Kinesin-associated protein 3 (KAP-3) (   | 0.2844183  | 0.672482 | 0.42294  | 7 | 0.68503  | 0.35        | 0.25        |

|          |                      |                                          |            |          |          |   |          |             |             |
|----------|----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P70195   | Psmb7 Mmc14          | Proteasome subunit beta type-7 (EC 3     | 0.1408311  | 0.270484 | 0.52066  | 8 | 0.616701 | 0.244444444 | 0.244444444 |
| P70196   | Traf6                | TNF receptor-associated factor 6 (EC 2   | -0.1513041 | 1.101091 | -0.13741 | 4 | 0.897344 | 0.6         | 0.2         |
| P70202   | Lxn                  | Latexin (Endogenous carboxypeptidas      | 0.1017035  | 0.272331 | 0.37346  | 8 | 0.718512 | 0.266666667 | 0.266666667 |
| P70206   | Plxna1 Kiaa4053      | Plexin-A1 (Plex 1) (Plexin-1)            | 0.142985   | 0.214384 | 0.66696  | 8 | 0.523566 | 0.55        | 0.55        |
| P70207   | Plxna2 Kiaa0463      | Plexin-A2 (Plex 2) (Plexin-2)            | -0.2980551 | 0.27785  | -1.07272 | 8 | 0.314687 | 0.44        | 0.44        |
| P70208   | Plxna3               | Plexin-A3                                | 0.2765457  | 0.531094 | 0.52071  | 5 | 0.624798 | 0.3         | 0           |
| P70211-2 | Dcc                  | Netrin receptor DCC (Tumor suppress      | -0.1756603 | 0.294744 | -0.59598 | 8 | 0.567666 | 0.427777778 | 0.427777778 |
| P70236   | Map2k6 Prkmk6 Sap    | Dual specificity mitogen-activated prot  | -0.2149158 | 0.182856 | -1.17533 | 8 | 0.273657 | 0.308333333 | 0.308333333 |
| P70245   | Ebp Msi              | 3-beta-hydroxysteroid-Delta(8),Delta(    | -0.1763888 | 0.184555 | -0.95575 | 5 | 0.38309  | 0.3         | 0           |
| P70257-1 | Nfix                 | Nuclear factor 1 X-type (NF1-X) (Nucle   | -0.8450113 | 0.393687 | -2.14641 | 8 | 0.064133 | 0.4         | 0.4         |
| P70268   | Pkn1 Pkn Prk1 Prkcl  | Serine/threonine-protein kinase N1 (E    | -0.3305336 | 0.253188 | -1.30549 | 8 | 0.228018 | 0.375       | 0.375       |
| P70271   | Pdlim4 Ril           | PDZ and LIM domain protein 4 (LIM prc    | 0.1210198  | 0.28584  | 0.42338  | 8 | 0.683169 | 0.3         | 0.3         |
| P70279   | Surf6 Surf-6         | Surfeit locus protein 6                  | 0.4855914  | 0.411364 | 1.18044  | 8 | 0.27173  | 0.52        | 0.52        |
| P70280   | Vamp7 Sybl1          | Vesicle-associated membrane protein 7    | -0.0392239 | 0.284732 | -0.13776 | 6 | 0.894939 | 0.6         | 0.4         |
| P70288   | Hdac2 Yy1bp          | Histone deacetylase 2 (HD2) (EC 3.5.1    | -0.0496008 | 0.134923 | -0.36762 | 8 | 0.72269  | 0.194444444 | 0.194444444 |
| P70296   | Pebp1 Pbp Pebp       | Phosphatidylethanolamine-binding pr      | 0.1758187  | 0.116676 | 1.5069   | 8 | 0.170263 | 0.156521739 | 0.156521739 |
| P70297   | Stam Stam1           | Signal transducing adapter molecule 1    | 0.005908   | 0.193973 | 0.03046  | 8 | 0.976448 | 0.344444444 | 0.344444444 |
| P70303   | Ctps2                | CTP synthase 2 (EC 6.3.4.2) (CTP synt    | -0.1615742 | 0.169646 | -0.95242 | 8 | 0.368771 | 0.322222222 | 0.322222222 |
| P70333   | Hnrnp2 Hnrph2        | Heterogeneous nuclear ribonucleoproi     | -0.2483588 | 0.248694 | -0.99865 | 8 | 0.347207 | 0.3375      | 0.3375      |
| P70335   | Rock1                | Rho-associated protein kinase 1 (EC 2    | -0.0252622 | 0.248897 | -0.1015  | 4 | 0.92404  | 0.4         | 0           |
| P70340   | Smad1 Madh1 Madr     | Mothers against decapentaplegic homc     | 0.3491193  | 0.292728 | 1.19264  | 8 | 0.267181 | 0.38        | 0.38        |
| P70349   | Hint1 Hint Pkci Pkci | Adenosine 5'-monophosphoramidase         | 0.3813217  | 0.269953 | 1.41255  | 8 | 0.195488 | 0.13125     | 0.13125     |
| P70362   | Ufd1 Ufd1l           | Ubiquitin recognition factor in ER-ass   | 0.0443644  | 0.126683 | 0.3502   | 8 | 0.735229 | 0.1125      | 0.1125      |
| Q8R3F9   | Tut1 Rbm21           | Speckle targeted PIP5K1A-regulated pc    | 0.674622   | 0.25244  | 2.67241  | 8 | 0.028257 | 0.557142857 | 0.557142857 |
| P70372   | Elavl1 Elra Hua      | ELAV-like protein 1 (Elav-like generic p | 0.1546135  | 0.152258 | 1.01547  | 8 | 0.339606 | 0.296428571 | 0.296428571 |
| P70388   | Rad50                | DNA repair protein RAD50 (mRad50) (      | -0.4554587 | 0.356881 | -1.27622 | 8 | 0.237679 | 0.544444444 | 0.544444444 |
| P70398   | Usp9x Fafl Fam       | Ubiquitin carboxyl-terminal hydrolase    | -0.1964566 | 0.249244 | -0.78821 | 8 | 0.453294 | 0.442307692 | 0.442307692 |
| P70399   | Tp53bp1 Trp53bp1     | TP53-binding protein 1 (53BP1) (p53-     | 0.1161942  | 0.070202 | 1.65513  | 8 | 0.136493 | 0.289156627 | 0.289156627 |
| P70404   | Idh3g                | Isocitrate dehydrogenase [NAD] subun     | 0.1336106  | 0.131202 | 1.01836  | 8 | 0.338312 | 0.318181818 | 0.318181818 |
| P70429   | Evl                  | Ena/VASP-like protein (Ena/vasodilato    | 0.1215444  | 0.188584 | 0.64451  | 8 | 0.537283 | 0.390909091 | 0.390909091 |
| P70441   | Nherf1 Nherf Slc9a1  | Na(+)/H(+) exchange regulatory cofact    | 0.2651961  | 0.331092 | 0.80097  | 8 | 0.44628  | 0.516666667 | 0.516666667 |
| P70445   | Eif4ebp2             | Eukaryotic translation initiation factor | -0.2421901 | 0.571226 | -0.42398 | 8 | 0.682749 | 0.3875      | 0.3875      |
| P70451   | Fer Fert2            | Tyrosine-protein kinase Fer (EC 2.7.10   | 0.4298824  | 0.351144 | 1.22423  | 6 | 0.266749 | 0.6         | 0.4         |
| P70452   | Stx4 Stx4a           | Syntaxin-4                               | -0.5715472 | 0.172382 | -3.31558 | 1 | 0.186485 | 0.7         | 0           |
| P70460   | Vasp                 | Vasodilator-stimulated phosphoprotei     | 0.2586536  | 0.181062 | 1.42854  | 8 | 0.190993 | 0.373333333 | 0.373333333 |
| P70658   | Cxcr4 Cmkar4 Lestr   | C-X-C chemokine receptor type 4 (CX      | -0.6341465 | 0.355939 | -1.78161 | 3 | 0.172837 | 0.5         | 0           |
| P70662   | Ldb1 Nli             | LIM domain-binding protein 1 (LDB-1)     | 0.0114297  | 0.277431 | 0.0412   | 8 | 0.968147 | 0.52        | 0.52        |
| P70670   | Naca Gm1878          | Nascent polypeptide-associated comp      | 0.0618632  | 0.126107 | 0.49056  | 8 | 0.636909 | 0.154545455 | 0.154545455 |

|        |                     |                                           |            |          |          |   |          |              |              |
|--------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|--------------|--------------|
| P70671 | Irf3                | Interferon regulatory factor 3 (IRF-3)    | 0.1114637  | 0.516594 | 0.21577  | 8 | 0.834569 | 0.475        | 0.475        |
| P70677 | Casp3 Cpp32         | Caspase-3 (CASP-3) (EC 3.4.22.56) (A      | 0.2393247  | 0.107424 | 2.22785  | 8 | 0.056486 | 0.2944444444 | 0.2944444444 |
| P70697 | Urod                | Uroporphyrinogen decarboxylase (UPI       | -0.0895395 | 0.154275 | -0.58039 | 8 | 0.57763  | 0.338461538  | 0.338461538  |
| P70698 | Ctps1 Ctps          | CTP synthase 1 (EC 6.3.4.2) (CTP synt     | 0.0555235  | 0.109053 | 0.50914  | 8 | 0.624395 | 0.216666667  | 0.216666667  |
| P70699 | Gaa                 | Lysosomal alpha-glucosidase (EC 3.2.1     | 0.3255803  | 0.18701  | 1.74098  | 8 | 0.119866 | 0.6          | 0.6          |
| P80205 | Otx1 Otx-1          | Homeobox protein OTX1 (Orthodentic        | 1.4554724  | 0.713534 | 2.03981  | 6 | 0.087468 | 0.2          | 0            |
| P80313 | Cct7 Cctb           | T-complex protein 1 subunit eta (TCP-     | -0.7691465 | 0.438262 | -1.75499 | 8 | 0.117338 | 0.3          | 0.3          |
| P80314 | Cct2 Cctb           | T-complex protein 1 subunit beta (TCF     | 0.4538896  | 0.262173 | 1.73126  | 8 | 0.121649 | 0.205172414  | 0.205172414  |
| P80315 | Cct4 Cctd           | T-complex protein 1 subunit delta (TCI    | 0.0322231  | 0.144518 | 0.22297  | 8 | 0.829147 | 0.224528302  | 0.224528302  |
| P80316 | Cct5 Ccte Kiaa0098  | T-complex protein 1 subunit epsilon (T    | 0.1338217  | 0.142324 | 0.94026  | 8 | 0.374604 | 0.230645161  | 0.230645161  |
| P80318 | Cct3 Cctg           | T-complex protein 1 subunit gamma (T      | -0.0085044 | 0.148176 | -0.05739 | 8 | 0.955639 | 0.15         | 0.15         |
| P81117 | Nucb2 Nefa          | Nucleobindin-2 (DNA-binding protein       | 0.1226682  | 0.324158 | 0.37842  | 6 | 0.718146 | 0.4          | 0.2          |
| P81122 | Irs2                | Insulin receptor substrate 2 (IRS-2) (4I  | -0.0494351 | 0.354646 | -0.13939 | 3 | 0.897972 | 0.5          | 0            |
| P83510 | Tnik Kiaa0551       | Traf2 and NCK-interacting protein kina    | -0.3639331 | 0.217113 | -1.67624 | 8 | 0.132217 | 0.25         | 0.25         |
| P83741 | Wnk1 Hsn2 Prkwnk    | Serine/threonine-protein kinase WNK1      | -0.0952348 | 0.130798 | -0.72811 | 8 | 0.487309 | 0.472727273  | 0.472727273  |
| P83870 | Phf5a               | PHD finger-like domain-containing pro     | 0.0176602  | 0.248654 | 0.07102  | 8 | 0.945123 | 0.257142857  | 0.257142857  |
| P83877 | Txn14a Dim1 Txn14   | Thioredoxin-like protein 4A (DIM1 prot    | 0.1852302  | 0.27879  | 0.66441  | 7 | 0.527702 | 0.266666667  | 0.166666667  |
| P83882 | Rpl36a Rpl44        | Large ribosomal subunit protein eL42 (    | 0.4146366  | 0.752475 | 0.55103  | 8 | 0.596662 | 0.5          | 0.5          |
| P83887 | Tubg1 Tubg          | Tubulin gamma-1 chain (Gamma-1-tub        | -0.209077  | 0.175419 | -1.19187 | 8 | 0.267465 | 0.305882353  | 0.305882353  |
| P83917 | Cbx1 Cbx            | Chromobox protein homolog 1 (Heter        | 0.4624337  | 0.237871 | 1.94406  | 8 | 0.087795 | 0.357142857  | 0.357142857  |
| P83940 | Eloc Tceb1          | Elongin-C (EloC) (Elongin 15 kDa sub      | 0.2694926  | 0.140868 | 1.91308  | 8 | 0.092092 | 0.15         | 0.15         |
| P84078 | Arf1                | ADP-ribosylation factor 1 (EC 3.6.5.2)    | 0.5050272  | 0.723833 | 0.69771  | 8 | 0.505126 | 0.325        | 0.325        |
| P84084 | Arf5                | ADP-ribosylation factor 5                 | 0.2962282  | 0.555344 | 0.53341  | 8 | 0.608244 | 0.283333333  | 0.283333333  |
| P84086 | Cplx2               | Complexin-2 (921-L) (Complexin II) (C     | 0.6535563  | 0.454891 | 1.43673  | 8 | 0.188726 | 0.45         | 0.45         |
| P84089 | Erh                 | Enhancer of rudimentary homolog (Me       | 0.1699019  | 0.137626 | 1.23452  | 8 | 0.252039 | 0            | 0            |
| P84091 | Ap2m1 Clapm1        | AP-2 complex subunit mu (AP-2 mu cl       | -0.1595348 | 0.366418 | -0.43539 | 8 | 0.674787 | 0.321052632  | 0.321052632  |
| P84096 | Rhog Arhg Sid1075   | Rho-related GTP-binding protein RhoG      | -0.4624518 | 0.316592 | -1.46072 | 7 | 0.187474 | 0.5          | 0.4          |
| P84099 | Rpl19               | Large ribosomal subunit protein eL19 (    | -0.1032052 | 0.315443 | -0.32718 | 8 | 0.751932 | 0.233333333  | 0.233333333  |
| P84104 | Srsf3 Sfrs3 Srp20 X | Serine/arginine-rich splicing factor 3 (F | 0.5678068  | 0.614685 | 0.92374  | 8 | 0.38264  | 0.245454545  | 0.245454545  |
| P84228 | H3c2 H3-53 H3.2 H   | Histone H3.2 (H3-clustered histone 1      | -0.8607156 | 0.95439  | -0.90185 | 8 | 0.393478 | 0.2          | 0.2          |
| P84244 | H3-3a H3.3a H3f3a   | Histone H3.3                              | 0.6122856  | 0.283755 | 2.15779  | 8 | 0.063006 | 0.066666667  | 0.066666667  |
| P85094 | Isoc2a Isoc2        | Isochorismatase domain-containing pr      | 0.1742637  | 0.298832 | 0.58315  | 8 | 0.575859 | 0.3          | 0.3          |
| P97287 | Mcl1                | Induced myeloid leukemia cell differen    | 0.4713951  | 0.324282 | 1.45366  | 7 | 0.189357 | 0.5          | 0.4          |
| P97303 | Bach2               | Transcription regulator protein BACH2     | 0.1793182  | 0.231675 | 0.77401  | 8 | 0.461185 | 0.514285714  | 0.514285714  |
| P97310 | Mcm2 Bm28 Cdcl1     | DNA replication licensing factor MCM2     | -0.2044721 | 0.089006 | -2.29729 | 8 | 0.050685 | 0.229787234  | 0.229787234  |
| P97311 | Mcm6 Mcmd6 Mis5     | DNA replication licensing factor MCM6     | 0.0457159  | 0.148248 | 0.30838  | 8 | 0.765674 | 0.266666667  | 0.266666667  |
| P97314 | Csrp2 Dlp1          | Cysteine and glycine-rich protein 2 (C    | 0.0011782  | 0.184862 | 0.00637  | 8 | 0.995071 | 0.318181818  | 0.318181818  |
| P97315 | Csrp1 Crp1 Csrp     | Cysteine and glycine-rich protein 1 (C    | 0.2353637  | 0.110383 | 2.13225  | 8 | 0.065563 | 0.3625       | 0.3625       |

|        |                      |                                            |            |          |          |   |          |             |             |
|--------|----------------------|--------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| P97329 | Kif20a Rab6kifl      | Kinesin-like protein KIF20A (Kinesin-like) | -0.5263543 | 0.29751  | -1.7692  | 7 | 0.120177 | 0.45        | 0.35        |
| P97333 | Nrp1 Nrp             | Neuropilin-1 (A5 protein) (CD antigen)     | -0.6874422 | 0.372505 | -1.84546 | 1 | 0.316133 | 0.7         | 0           |
| P97346 | Nxn Gn25             | Nucleoredoxin (EC 1.8.1.8) (Protein R)     | -0.2047251 | 0.222203 | -0.92134 | 8 | 0.383814 | 0.466666667 | 0.466666667 |
| P97351 | Rps3a Rps3a1         | Small ribosomal subunit protein eS1 (4     | 0.078159   | 0.313661 | 0.24918  | 8 | 0.809498 | 0.21        | 0.21        |
| P97355 | Sms                  | Spermene synthase (SPMSY) (EC 2.5.1.       | 0.3330659  | 0.234545 | 1.42005  | 8 | 0.193368 | 0.333333333 | 0.333333333 |
| P97363 | Sptlc2 Lcb2          | Serine palmitoyltransferase 2 (EC 2.3.1    | 0.731587   | 0.35789  | 2.04417  | 2 | 0.177623 | 0.6         | 0           |
| P97364 | Sephs2 Sps2          | Selenide, water dikinase 2 (EC 2.7.9.3)    | 0.4216918  | 0.669841 | 0.62954  | 2 | 0.593322 | 0.6         | 0           |
| P97370 | Atp1b3               | Sodium/potassium-transporting ATPase       | -0.1890793 | 0.185798 | -1.01766 | 8 | 0.338625 | 0.3         | 0.3         |
| Q9D600 | Gins2 Psf2           | DNA replication complex GINS protein       | 0.6560313  | 0.258649 | 2.53638  | 8 | 0.034907 | 0.3         | 0.3         |
| P97372 | Psme2 Pa28b1         | Proteasome activator complex subunit       | 0.3293471  | 0.276104 | 1.19284  | 8 | 0.267108 | 0.392307692 | 0.392307692 |
| P97376 | Frg1                 | Protein FRG1 (FSHD region gene 1 pro       | -0.5156079 | 0.418457 | -1.23216 | 8 | 0.252871 | 0.475       | 0.475       |
| P97377 | Cdk2 Cdkn2           | Cyclin-dependent kinase 2 (EC 2.7.11.      | 0.0389252  | 0.125382 | 0.31045  | 8 | 0.764151 | 0.390909091 | 0.390909091 |
| P97379 | G3bp2                | Ras GTPase-activating protein-binding      | 0.0986164  | 0.176302 | 0.55936  | 8 | 0.591227 | 0.3         | 0.3         |
| P97386 | Lig3                 | DNA ligase 3 (EC 6.5.1.1) (DNA ligase I    | -0.179185  | 0.192103 | -0.93275 | 8 | 0.378239 | 0.346666667 | 0.346666667 |
| P97390 | Vps45 Vps45a         | Vacuolar protein sorting-associated pr     | 0.5101531  | 0.464589 | 1.09807  | 8 | 0.304119 | 0.4         | 0.4         |
| P97393 | Arhgap5 Rhogap5      | Rho GTPase-activating protein 5 (Rho-      | 0.0178575  | 0.30183  | 0.05916  | 7 | 0.954475 | 0.62        | 0.52        |
| P97429 | Anxa4 Anx4           | Annexin A4 (Annexin IV) (Annexin-4)        | -1.1833995 | 0.619904 | -1.909   | 1 | 0.30719  | 0.7         | 0           |
| P97434 | Mprip Kiaa0864 Mrip  | Myosin phosphatase Rho-interacting p       | -0.0286322 | 0.520182 | -0.05504 | 8 | 0.957454 | 0.52        | 0.52        |
| P97447 | Fhl1                 | Four and a half LIM domains protein 1      | -0.2978497 | 0.154215 | -1.9314  | 8 | 0.089528 | 0.18        | 0.18        |
| P97450 | Atp5pf Atp5j         | ATP synthase-coupling factor 6, mitocl     | 0.1700649  | 0.291714 | 0.58298  | 8 | 0.575964 | 0.285714286 | 0.285714286 |
| P97452 | Bop1 Kiaa0124        | Ribosome biogenesis protein BOP1 (BI       | -0.1868298 | 0.159946 | -1.16808 | 8 | 0.276405 | 0.427272727 | 0.427272727 |
| P97454 | Smad5 Madh5 Msm      | Mothers against decapentaplegic homc       | 0.5553344  | 0.340205 | 1.63235  | 8 | 0.141249 | 0.32        | 0.32        |
| P97461 | Rps5                 | Small ribosomal subunit protein uS7 (      | 0.1550087  | 0.322964 | 0.47996  | 8 | 0.644106 | 0.376470588 | 0.376470588 |
| P97470 | Ppp4c Ppp4 Ppx       | Serine/threonine-protein phosphatase       | 0.0542314  | 0.332028 | 0.16333  | 8 | 0.874306 | 0.325       | 0.325       |
| P97471 | Smad4 Dpc4 Madh4     | Mothers against decapentaplegic homc       | 0.0467526  | 0.266913 | 0.17516  | 8 | 0.865306 | 0.314285714 | 0.314285714 |
| P97473 | Tarbp2 Prbp          | RISC-loading complex subunit TARBP2        | 0.83515    | 0.532124 | 1.56946  | 8 | 0.155179 | 0.516666667 | 0.516666667 |
| P97477 | Aurka Aik Airk1 Ark1 | Aurora kinase A (EC 2.7.11.1) (Aurora      | 0.7526543  | 0.689705 | 1.09127  | 5 | 0.324927 | 0.65        | 0.35        |
| P97480 | Eya3                 | Eyes absent homolog 3 (EC 3.1.3.48)        | -0.8273718 | 0.382498 | -2.16308 | 1 | 0.275681 | 0.7         | 0           |
| P97493 | Txn2                 | Thioredoxin, mitochondrial (MTRX) (Mt      | -0.0238066 | 0.369621 | -0.06441 | 6 | 0.950738 | 0.475       | 0.275       |
| Q91VJ4 | Stk38 Ndr1           | Serine/threonine-protein kinase 38 (EC     | 0.654663   | 0.259789 | 2.51998  | 8 | 0.03581  | 0.571428571 | 0.571428571 |
| P97496 | Smarcc1 Baf155 Srg   | SWI/SNF complex subunit SMARCC1 (          | 0.0086748  | 0.174174 | 0.04981  | 8 | 0.961499 | 0.338461538 | 0.338461538 |
| P97760 | Polr2c Rpo2-3        | DNA-directed RNA polymerase II subur       | 0.2197155  | 0.223827 | 0.98163  | 8 | 0.355032 | 0.290909091 | 0.290909091 |
| P97765 | Wbp2                 | WW domain-binding protein 2 (WBP-2         | 0.3462265  | 0.233778 | 1.481    | 8 | 0.17688  | 0.14        | 0.14        |
| P97770 | Thumpd3              | tRNA (guanine(6)-N2)-methyltransfera       | -0.2167006 | 0.160494 | -1.35021 | 8 | 0.213903 | 0.422222222 | 0.422222222 |
| P97783 | Mltt11 Af1q          | Protein AF1q                               | 0.4191689  | 0.407578 | 1.02844  | 8 | 0.333832 | 0.16        | 0.16        |
| P97792 | Cxadr Car            | Coxsackievirus and adenovirus recepto      | 0.1594657  | 0.192084 | 0.83019  | 8 | 0.430508 | 0.317647059 | 0.317647059 |
| P97797 | Sirpa Bit Myd1 Ptpn  | Tyrosine-protein phosphatase non-rec       | -0.1399427 | 0.320575 | -0.43654 | 5 | 0.680654 | 0.45        | 0.15        |
| P97798 | Neo1 Ngn             | Neogenin                                   | -0.3362061 | 0.217579 | -1.54521 | 8 | 0.160876 | 0.5         | 0.5         |

|        |                   |                                          |            |          |          |    |          |             |             |
|--------|-------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| P97801 | Smn1 Smn          | Survival motor neuron protein            | 0.7565603  | 0.49862  | 1.51731  | 8  | 0.167665 | 0.571428571 | 0.571428571 |
| P97807 | Fh Fh1            | Fumarate hydratase, mitochondrial (Fu    | 0.0885898  | 0.17813  | 0.49733  | 8  | 0.632334 | 0.222727273 | 0.222727273 |
| P97822 | Anp32e Cpd1       | Acidic leucine-rich nuclear phosphopr    | 0.2628157  | 0.251066 | 1.0468   | 8  | 0.325785 | 0.194117647 | 0.194117647 |
| P97823 | Lypla1 Apt1 Pla1a | Acyl-protein thioesterase 1 (APT-1) (E   | 0.1750508  | 0.136925 | 1.27844  | 8  | 0.236935 | 0.328571429 | 0.328571429 |
| P97825 | Jpt1 Hn1          | Jupiter microtubule associated homolc    | 0.1070942  | 0.142412 | 0.752    | 8  | 0.473591 | 0.321428571 | 0.321428571 |
| P97855 | G3bp1 G3bp        | Ras GTPase-activating protein-binding    | 0.1247259  | 0.079711 | 1.56473  | 8  | 0.156276 | 0.163636364 | 0.163636364 |
| Q64337 | Sqstm1 A170 STAP  | Sequestosome-1 (STONE14) (Ubiquiti       | 0.6503723  | 0.172673 | 3.76649  | 7  | 0.007015 | 0.46        | 0.36        |
| P97864 | Casp7 Lice2 Mch3  | Caspase-7 (CASP-7) (EC 3.4.22.60) (A     | -0.2995832 | 0.291867 | -1.02644 | 4  | 0.362701 | 0.4         | 0           |
| P97868 | Rbbp6 P2pr Pact   | E3 ubiquitin-protein ligase RBBP6 (EC    | 0.130316   | 0.232798 | 0.55978  | 8  | 0.590953 | 0.533333333 | 0.533333333 |
| P97930 | Dtymk Tmk         | Thymidylate kinase (EC 2.7.4.9) (dTMP    | 0.4692586  | 0.393003 | 1.19403  | 8  | 0.266666 | 0.3375      | 0.3375      |
| P98078 | Dab2 Doc2         | Disabled homolog 2 (Adaptor molecu       | 0.1345649  | 0.394573 | 0.34104  | 3  | 0.755562 | 0.7         | 0.2         |
| P98084 | Apba2 X11l        | Amyloid-beta A4 precursor protein-bin    | -0.1356152 | 0.196107 | -0.69154 | 8  | 0.508796 | 0.44        | 0.44        |
| P98200 | Atp8a2            | Phospholipid-transporting ATPase IB (    | 0.0907775  | 0.273121 | 0.33237  | 1  | 0.795719 | 0.7         | 0           |
| P98203 | Arvcf             | Splicing regulator ARVCF (Armadillo re   | 0.2136526  | 0.101173 | 2.11175  | 8  | 0.067689 | 0.353333333 | 0.353333333 |
| P99024 | Tubb5             | Tubulin beta-5 chain                     | 0.0161142  | 0.204341 | 0.07886  | 8  | 0.939081 | 0.146666667 | 0.146666667 |
| P99026 | Psmb4 Lmp3        | Proteasome subunit beta type-4 (Low      | 0.1442557  | 0.251822 | 0.57285  | 8  | 0.582485 | 0.183333333 | 0.183333333 |
| P99027 | Rplp2             | Large ribosomal subunit protein P2 (6    | 0.2269787  | 0.544638 | 0.41675  | 8  | 0.687817 | 0.25        | 0.25        |
| P99028 | Uqcrrh            | Cytochrome b-c1 complex subunit 6, i     | 0.3428439  | 0.653786 | 0.5244   | 8  | 0.614218 | 0.3         | 0.3         |
| P99029 | Prdx5 Prdx6       | Peroxiredoxin-5, mitochondrial (EC 1.    | 0.1692     | 0.142402 | 1.18819  | 8  | 0.268834 | 0.141666667 | 0.141666667 |
| Q00420 | Gabpb1 Gabpb Gab  | GA-binding protein subunit beta-1 (G     | 0.4994122  | 0.215539 | 2.31704  | 3  | 0.103363 | 0.533333333 | 0.033333333 |
| Q00422 | Gabpa E4tf1a      | GA-binding protein alpha chain (GABP     | 0.0653118  | 0.169171 | 0.38607  | 8  | 0.70951  | 0.476923077 | 0.476923077 |
| Q00612 | G6pdx G6pd G6pd-  | Glucose-6-phosphate 1-dehydrogenas       | 0.3583602  | 0.233262 | 1.5363   | 8  | 0.163018 | 0.284615385 | 0.284615385 |
| Q00623 | Apoa1             | Apolipoprotein A-I (Apo-AI) (ApoA-I) (   | 0.766946   | 0.707981 | 1.08329  | 8  | 0.310248 | 0.39047619  | 0.39047619  |
| Q00897 | Serpina1d Dom4 Sp | Alpha-1-antitrypsin 1-4 (Alpha-1 prote   | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| Q00899 | Yy1 Ucrbp         | Transcriptional repressor protein YY1 (  | -0.3548807 | 0.193223 | -1.83663 | 8  | 0.103579 | 0.444444444 | 0.444444444 |
| Q00915 | Rbp1 Crbpi Rbp-1  | Retinol-binding protein 1 (Cellular reti | 0.6031916  | 0.398306 | 1.51439  | 8  | 0.168388 | 0.3         | 0.3         |
| Q00PI9 | Hnrnpul2 Hnrnpul2 | Heterogeneous nuclear ribonucleopro      | 0.006278   | 0.076454 | 0.08212  | 8  | 0.936572 | 0.272222222 | 0.272222222 |
| Q01065 | Pde1b Pde1b1      | Dual specificity calcium/calmodulin-de   | -0.2770939 | 0.389781 | -0.7109  | 8  | 0.497347 | 0.557142857 | 0.557142857 |
| Q01147 | Creb1 Creb-1      | Cyclic AMP-responsive element-bindin     | 0.1191096  | 0.45398  | 0.26237  | 8  | 0.799668 | 0.5         | 0.5         |
| Q01149 | Col1a2 Cola2      | Collagen alpha-2(I) chain (Alpha-2 typ   | 0.0375959  | 0.567533 | 0.06624  | 4  | 0.950362 | 0.65        | 0.25        |
| Q01237 | Hmgcr             | 3-hydroxy-3-methylglutaryl-coenzyme      | -0.0814161 | 0.372549 | -0.21854 | 7  | 0.833245 | 0.566666667 | 0.466666667 |
| Q01320 | Top2a Top-2 Top2  | DNA topoisomerase 2-alpha (EC 5.6.2      | 0.0063123  | 0.348055 | 0.01814  | 8  | 0.985975 | 0.364285714 | 0.364285714 |
| Q6PE15 | Abhd10            | Palmitoyl-protein thioesterase ABHD10    | 0.6253363  | 0.220992 | 2.82967  | 8  | 0.022161 | 0.5         | 0.5         |
| Q01705 | Notch1 Notch      | Neurogenic locus notch homolog prot      | 0.0546858  | 0.318959 | 0.17145  | 6  | 0.869506 | 0.633333333 | 0.433333333 |
| Q01721 | Gas1 Gas-1        | Growth arrest-specific protein 1 (GAS-   | -0.2531197 | 0.315431 | -0.80246 | 8  | 0.445471 | 0.2625      | 0.2625      |
| Q01853 | Vcp               | Transitional endoplasmic reticulum AT    | 0.1474267  | 0.128204 | 1.14994  | 8  | 0.283383 | 0.208080808 | 0.208080808 |
| Q02053 | Uba1 Sbx Ube1 Ube | Ubiquitin-like modifier-activating enzy  | 0.1191999  | 0.090772 | 1.31318  | 8  | 0.225534 | 0.206       | 0.206       |
| Q02248 | Ctnnb1 Catnb      | Catenin beta-1 (Beta-catenin)            | -0.1225337 | 0.154569 | -0.79274 | 8  | 0.450795 | 0.294594595 | 0.294594595 |

|          |                    |                                          |            |          |          |    |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q02395   | Mtf2 Pcl2          | Metal-response element-binding transcr   | -0.3514002 | 0.229696 | -1.52985 | 5  | 0.186607 | 0.3         | 0           |
| Q02526   | Zfp41 Zfp-41       | Zinc finger protein 41 (Zfp-41) (CtFIN   | 0.1310043  | 0.843786 | 0.15526  | 7  | 0.881    | 0.4         | 0.3         |
| Q02614   | Sap30bp Hcngp      | SAP30-binding protein (Transcription     | 0.0224993  | 0.063658 | 0.35344  | 8  | 0.732889 | 0.24        | 0.24        |
| Q62277   | Syp                | Synaptophysin (BM89 antigen) (Major      | 0.6000765  | 0.084244 | 7.1231   | 2  | 0.019145 | 0.65        | 0.05        |
| Q02819   | Nucb1 Nuc Nucb     | Nucleobindin-1 (CALNUC)                  | 0.2053241  | 0.122947 | 1.67002  | 8  | 0.133465 | 0.352       | 0.352       |
| Q03137   | Epha4 Sek Sek1     | Ephrin type-A receptor 4 (EC 2.7.10.1)   | -0.2309702 | 0.302553 | -0.76341 | 8  | 0.467135 | 0.375       | 0.375       |
| Q03141   | Mark3 Emk2 Mpk10   | MAP/microtubule affinity-regulating kir  | 0.0532763  | 0.232298 | 0.22935  | 8  | 0.824355 | 0.45        | 0.45        |
| Q03146   | Ddr1 Cak Eddr1 Mp  | Epithelial discoidin domain-containing   | -0.7554583 | 0.670824 | -1.12616 | 2  | 0.377063 | 0.6         | 0           |
| Q03157   | Aplp1              | Amyloid beta precursor like protein 1 (  | -1.1517785 | 0.957873 | -1.20243 | 1  | 0.44165  | 0.7         | 0           |
| Q03173-4 | Enah Mena Ndpp1    | Protein enabled homolog (NPC-derive      | 0.2819472  | 0.171632 | 1.64274  | 8  | 0.139061 | 0.324324324 | 0.324324324 |
| Q03265   | Atp5f1a Atp5a1     | ATP synthase subunit alpha, mitochon     | 0.028418   | 0.084123 | 0.33781  | 8  | 0.744196 | 0.169047619 | 0.169047619 |
| Q03958   | Pfdn6 H2-Ke2 Pfd6  | Prefoldin subunit 6 (Protein Ke2)        | 0.2236237  | 0.305132 | 0.73288  | 8  | 0.484552 | 0.21        | 0.21        |
| Q04207   | Rela Nfkb3         | Transcription factor p65 (Nuclear fact   | 0.2209634  | 0.316395 | 0.69838  | 7  | 0.507471 | 0.34        | 0.24        |
| Q04447   | Ckb Ckbb           | Creatine kinase B-type (EC 2.7.3.2) (B-  | 0.1630659  | 0.103886 | 1.56966  | 8  | 0.155134 | 0.146875    | 0.146875    |
| Q04690   | Nf1                | Neurofibromin (Neurofibromatosis-rel     | 0.2009956  | 0.072955 | 2.75507  | 1  | 0.221658 | 0.7         | 0           |
| Q04692   | Smardc1 Etl1 Kiaa1 | SWI/SNF-related matrix-associated acti   | -0.0358738 | 0.209933 | -0.17088 | 8  | 0.868559 | 0.461111111 | 0.461111111 |
| Q04736   | Yes1 Yes           | Tyrosine-protein kinase Yes (EC 2.7.10   | 0.1702362  | 0.450646 | 0.37776  | 8  | 0.715434 | 0.571428571 | 0.571428571 |
| Q04742   | Emx1 Emx-1         | Homeobox protein EMX1 (Empty spira       | -0.3578441 | 0.389061 | -0.91976 | 8  | 0.384591 | 0.557142857 | 0.557142857 |
| Q04744   | Emx2 Emx-2         | Homeobox protein EMX2 (Empty spira       | -0.5246657 | 0.333252 | -1.57438 | 3  | 0.213469 | 0.5         | 0           |
| Q04750   | Top1 Top-1         | DNA topoisomerase 1 (EC 5.6.2.1) (Df     | 0.0486025  | 0.503519 | 0.09653  | 8  | 0.925477 | 0.25952381  | 0.25952381  |
| Q04841   | Mpg Mid1           | DNA-3-methyladenine glycosylase (EC Inf  | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| Q04857   | Col6a1             | Collagen alpha-1(VI) chain               | -0.3987475 | 0.304658 | -1.30884 | 4  | 0.260719 | 0.4         | 0           |
| Q04887   | Sox9 Sox-9         | Transcription factor SOX-9 (mSox9)       | -0.1593083 | 0.43091  | -0.3697  | 8  | 0.7212   | 0.55        | 0.55        |
| Q05186   | Rcn1 Rca1 Rcn      | Reticulocalbin-1                         | 0.0973788  | 0.181009 | 0.53798  | 8  | 0.605232 | 0.286666667 | 0.286666667 |
| Q05512   | Mark2 Emk          | Serine/threonine-protein kinase MARK     | -0.3063818 | 0.827371 | -0.37031 | 6  | 0.723874 | 0.433333333 | 0.233333333 |
| Q05816   | Fabp5 Fabpe Klbp M | Fatty acid-binding protein 5 (Epiderma   | -0.0099651 | 0.310127 | -0.03213 | 8  | 0.975154 | 0.176       | 0.176       |
| Q05A36   | Mex3c Rkhd2        | RNA-binding E3 ubiquitin-protein ligas   | -0.128891  | 0.301132 | -0.42802 | 6  | 0.683573 | 0.7         | 0.5         |
| Q05A62   | Dnal1 Dnalcl1      | Dynein axonemal light chain 1            | 1.4472247  | 0.931529 | 1.5536   | 1  | 0.364089 | 0.7         | 0           |
| Q05BC3   | Eml1               | Echinoderm microtubule-associated p      | -0.2675668 | 0.413321 | -0.64736 | 6  | 0.541361 | 0.466666667 | 0.266666667 |
| Q05BM5   | Trmt2a Htf9c       | tRNA (uracil(54)-C(5))-methyltransfer    | 0.1838166  | 0.181878 | 1.01066  | 8  | 0.341768 | 0.466666667 | 0.466666667 |
| Q05CL8   | Larp7 D3Wsu161e    | La-related protein 7 (La ribonucleopro   | -0.3529705 | 0.238536 | -1.47974 | 8  | 0.177209 | 0.441176471 | 0.441176471 |
| Q05D44   | Eif5b If2          | Eukaryotic translation initiation factor | -0.1064868 | 0.167803 | -0.63459 | 8  | 0.54341  | 0.318367347 | 0.318367347 |
| Q05DR8   | Ikbb               | IkappaB kinase (EC 2.7.11.10)            | 1.4279411  | 1.2866   | 1.10986  | 4  | 0.329285 | 0.4         | 0           |
| Q05KA5   | Gm5886 EG54588f    | Submandibular androgen-repressed pi      | 0.10303    | 0.550401 | 0.18719  | 1  | 0.882194 | 0.7         | 0           |
| Q06138   | Cab39 Mo25         | Calcium-binding protein 39 (MO25alpl     | 0.6958848  | 0.353658 | 1.96768  | 8  | 0.084647 | 0.346153846 | 0.346153846 |
| Q06180   | Ptpn2 Ptp          | Tyrosine-protein phosphatase non-rec     | -0.3462617 | 0.386531 | -0.89582 | 5  | 0.411399 | 0.7         | 0.4         |
| Q06185   | Atp5me Atp5i Atp5k | ATP synthase subunit e, mitochondrial    | -0.1582232 | 0.705085 | -0.2244  | 7  | 0.828853 | 0.3         | 0.2         |
| Q06831   | Sox4 Sox-4         | Transcription factor SOX-4               | -0.2060541 | 0.285994 | -0.72048 | 8  | 0.49174  | 0.35        | 0.35        |

|          |          |                                           |            |          |          |    |          |             |             |
|----------|----------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q9D6F9   | Tubb4a   | Tubulin beta-4A chain (Tubulin beta-4     | 0.5948634  | 0.167702 | 3.54715  | 8  | 0.007541 | 0.171428571 | 0.171428571 |
| Q07076   | Anxa7    | Annexin A7 (Annexin VII) (Annexin-7) (    | 0.2244237  | 0.347473 | 0.64587  | 2  | 0.584572 | 0.6         | 0           |
| Q07113   | Igf2r    | Cation-independent mannose-6-phos         | -0.087277  | 0.169689 | -0.51433 | 8  | 0.620921 | 0.39        | 0.39        |
| Q07231   | Zscan21  | Zinc finger and SCAN domain-containi      | 1.2612507  | 0.692532 | 1.82122  | 8  | 0.106055 | 0.563636364 | 0.563636364 |
| Q07417   | Acads    | Short-chain specific acyl-CoA dehydro     | -0.0013197 | 0.35417  | -0.00373 | 8  | 0.997118 | 0.385714286 | 0.385714286 |
| Q07813   | Bax      | Apoptosis regulator BAX                   | -0.0998482 | 0.266205 | -0.37508 | 8  | 0.71735  | 0.2         | 0.2         |
| Q07832   | Plk1     | Serine/threonine-protein kinase PLK1 (    | -0.3983448 | 0.181131 | -2.1992  | 3  | 0.115258 | 0.55        | 0.05        |
| Q08024   | Cbfb     | Core-binding factor subunit beta (CBF     | 0.1224221  | 0.258098 | 0.47432  | 8  | 0.647946 | 0.342857143 | 0.342857143 |
| Q08093   | Cnn2     | Calponin-2 (Calponin H2, smooth mu        | 0.4899663  | 0.623825 | 0.78542  | 4  | 0.476119 | 0.666666667 | 0.266666667 |
| Q08122   | Tle3     | Transducin-like enhancer protein 3 (ES    | 0.349802   | 0.243629 | 1.4358   | 8  | 0.188983 | 0.33        | 0.33        |
| Q08288   | Lyar     | Cell growth-regulating nucleolar protei   | 0.1609863  | 0.416015 | 0.38697  | 8  | 0.708867 | 0.35        | 0.35        |
| Q08331   | Calb2    | Calretinin (CR)                           | 0.095881   | 0.623029 | 0.1539   | 7  | 0.882035 | 0.475       | 0.375       |
| Q3TIR1   | Trappc13 | Trafficking protein particle complex sul  | 0.5871725  | 0.117523 | 4.99626  | 2  | 0.037803 | 0.6         | 0           |
| Q08879-2 | Fbln1    | Fibulin-1 (FBL-1) (Basement-membran       | 0.2862528  | 0.42949  | 0.6665   | 8  | 0.523846 | 0.35        | 0.35        |
| Q08943   | Ssrp1    | FACT complex subunit SSRP1 (Facilita      | -0.0275653 | 0.061305 | -0.44964 | 8  | 0.664902 | 0.19        | 0.19        |
| Q09143   | Slc7a1   | High affinity cationic amino acid transp  | 1.6097455  | 1.235934 | 1.30245  | 5  | 0.249525 | 0.466666667 | 0.166666667 |
| Q09163   | DLK1     | Protein delta homolog 1 (DLK-1) (Adip     | 0.1342329  | 0.122931 | 1.09194  | 2  | 0.388855 | 0.6         | 0           |
| Q09XV5   | Chd8     | Chromodomain-helicase-DNA-binding         | -0.3125627 | 0.189506 | -1.64936 | 8  | 0.137684 | 0.35        | 0.35        |
| Q0KL01   | Ubxn2b   | UBX domain-containing protein 2B (N       | -0.6377509 | 0.413455 | -1.54249 | 5  | 0.183597 | 0.6         | 0.3         |
| Q0KL02   | Trio     | Triple functional domain protein (EC 2    | 0.4368505  | 0.389922 | 1.12035  | 8  | 0.295067 | 0.5375      | 0.5375      |
| Q0P678   | Zc3h18   | Zinc finger CCCH domain-containing p      | -0.038941  | 0.235751 | -0.16518 | 8  | 0.872901 | 0.35        | 0.35        |
| Q0P688   | Eif4e2   | Eukaryotic translation initiation factor  | -0.1475447 | 0.428281 | -0.3445  | 7  | 0.740585 | 0.1         | 0           |
| Q0VBD0   | Itgb8    | Integrin beta-8                           | 0.040854   | 0.183127 | 0.22309  | 6  | 0.830866 | 0.2         | 0           |
| Q0VBL3-2 | Rbm15    | RNA-binding protein 15 (One-twenty t      | 0.1304108  | 0.216527 | 0.60228  | 8  | 0.563663 | 0.425       | 0.425       |
| Q0VBV7   | Cep126   | Centrosomal protein of 126 kDa            | -0.184347  | 0.297789 | -0.61905 | 5  | 0.562994 | 0.65        | 0.35        |
| Q0VG47   | Hnrnpa3  | Heterogeneous nuclear ribonucleopro       | 0.5194271  | 0.47719  | 1.08851  | 8  | 0.308071 | 0.216666667 | 0.216666667 |
| Q0VG62   | Rbis     | Ribosomal biogenesis factor               | 0.2423774  | 2.460466 | 0.09851  | 2  | 0.930512 | 0.6         | 0           |
| Q0VGB7   | Ppp4r2   | Serine/threonine-protein phosphatase      | 0.1084578  | 0.152378 | 0.71177  | 8  | 0.496837 | 0.326086957 | 0.326086957 |
| Q11011   | Npepps   | Puromycin-sensitive aminopeptidase (      | 0.166645   | 0.186801 | 0.8921   | 8  | 0.398377 | 0.293617021 | 0.293617021 |
| Q11136   | Pepd     | Xaa-Pro dipeptidase (X-Pro dipeptidas     | -0.0517329 | 0.244924 | -0.21122 | 8  | 0.837997 | 0.377777778 | 0.377777778 |
| Q148U4   | Plekhg1  | Plekhg1 protein                           | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| Q148V7   | Relch    | RAB11-binding protein RELCH (LisH d       | -0.086269  | 0.324178 | -0.26612 | 8  | 0.79688  | 0.54        | 0.54        |
| Q149F1   | Rpusd2   | Pseudouridylate synthase RPUSD2 (E        | 0.0693976  | 0.685433 | 0.10125  | 8  | 0.921846 | 0           | 0           |
| Q149F3   | Gsp2     | Eukaryotic peptide chain release factor   | 0.0121567  | 0.882527 | 0.01377  | 2  | 0.99026  | 0.6         | 0           |
| Q14AI0   | DSCC1    | Sister chromatid cohesion protein DC      | 0.5175818  | 0.356527 | 1.45173  | 5  | 0.20629  | 0.6         | 0.3         |
| Q8CJ40   | Crocc    | Rootletin (Ciliary rootlet coiled-coil pr | 0.5844608  | 0.248364 | 2.35324  | 8  | 0.046445 | 0.444444444 | 0.444444444 |
| Q14B01   | Rnf113a2 | Ring finger protein 113A2                 | -0.1387455 | 0.257472 | -0.53888 | 7  | 0.606677 | 0.45        | 0.35        |
| Q14B21   | Mrpl9    | Large ribosomal subunit protein bL9m      | -0.3642052 | 0.188301 | -1.93416 | 7  | 0.094343 | 0.5         | 0.4         |

|        |                     |                                         |            |          |          |   |          |             |             |
|--------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q14C51 | Ptcd3 Mrps39        | Small ribosomal subunit protein mS39    | 0.9960682  | 0.620066 | 1.60639  | 8 | 0.146855 | 0.366666667 | 0.366666667 |
| Q14CH7 | Aars2 Aars1 Gm89 K  | Alanine--tRNA ligase, mitochondrial (E  | -0.2053208 | 0.210829 | -0.97387 | 7 | 0.362563 | 0.5         | 0.4         |
| Q155P7 | Cenpf Lek1          | LEK1                                    | 0.4907997  | 0.87865  | 0.55858  | 3 | 0.615428 | 0.6         | 0.1         |
| Q1A602 | Actn4               | Alpha-actinin-4 (Non-muscle alpha-acti  | -0.2097503 | 1.796015 | -0.11679 | 4 | 0.912658 | 0.4         | 0           |
| Q1HFZ0 | Nsun2 D13Wsu123     | RNA cytosine C(5)-methyltransferase f   | 0.0883686  | 0.164669 | 0.53664  | 8 | 0.606111 | 0.405128205 | 0.405128205 |
| Q1W5W7 | gag-pol             | Putative gag-pol protein                | 0.2924991  | 0.297632 | 0.98275  | 7 | 0.358468 | 0.5         | 0.4         |
| Q2KN98 | Specc1l Cytsa Kiaa0 | Cytospin-A (SPECC1-like protein) (Sp    | 0.7252215  | 0.60702  | 1.19472  | 8 | 0.266411 | 0.5         | 0.5         |
| Q2NL51 | Gsk3a               | Glycogen synthase kinase-3 alpha (GSI   | -0.1264446 | 0.094028 | -1.34475 | 8 | 0.215585 | 0.5         | 0.5         |
| Q2PZL6 | Fat4 Fatj           | Protocadherin Fat 4 (FAT tumor suppress | -0.2614335 | 0.298726 | -0.87516 | 6 | 0.415141 | 0.575       | 0.375       |
| Q2Q7P0 | Pdlim5              | ENH1                                    | 0.4148937  | 0.362621 | 1.14415  | 8 | 0.285637 | 0.52        | 0.52        |
| Q2TPA8 | Hsd12               | Hydroxysteroid dehydrogenase-like pro   | -0.3385928 | 0.385649 | -0.87798 | 2 | 0.472553 | 0.6         | 0           |
| Q2VPQ9 | Meaf6               | Chromatin modification-related protei   | -0.6206657 | 0.420143 | -1.47727 | 5 | 0.199644 | 0.45        | 0.15        |
| Q2YDW2 | Msto1               | Protein misato homolog 1                | 0.0039337  | 0.270233 | 0.01456  | 8 | 0.988742 | 0.477777778 | 0.477777778 |
| Q31125 | Slc39a7 H2-Ke4 Hk   | Zinc transporter SLC39A7 (Histidine-ri  | -0.108045  | 0.467247 | -0.23124 | 8 | 0.822935 | 0.457142857 | 0.457142857 |
| Q32MD9 | Cdon Cdo            | Cell adhesion molecule-related/down-i   | -0.8276207 | 0.470735 | -1.75815 | 4 | 0.153549 | 0.6         | 0.2         |
| Q32NY6 | Nr2f1               | Nuclear receptor subfamily 2, group F,  | -0.3804301 | 0.275177 | -1.38249 | 8 | 0.204186 | 0.333333333 | 0.333333333 |
| Q3B7Z2 | Osbp Kiaa4220       | Oxysterol-binding protein 1             | -0.1402913 | 0.390992 | -0.35881 | 8 | 0.729023 | 0.383333333 | 0.383333333 |
| Q3KNM2 | March5 March5       | E3 ubiquitin-protein ligase MARCHF5 (   | -0.1958339 | 0.197381 | -0.99216 | 8 | 0.350177 | 0.25        | 0.25        |
| Q3SXD3 | Hddc2               | 5'-deoxynucleotidase HDDC2 (EC 3.1.     | 0.4412377  | 0.455038 | 0.96967  | 8 | 0.360609 | 0.35        | 0.35        |
| Q3SYI6 | Cntnap2             | Cntnap2 protein                         | 0.0322933  | 0.238574 | 0.13536  | 2 | 0.904722 | 0.6         | 0           |
| Q3T9A5 | Glmn                | Glomulin, FKBP associated protein       | -0.1396849 | 0.214437 | -0.6514  | 4 | 0.550317 | 0.65        | 0.25        |
| Q3T9M2 | 2410002F23Rik       | Friend virus susceptibility 1           | 0.288133   | 0.280211 | 1.02827  | 8 | 0.333906 | 0.6         | 0.6         |
| Q3TA68 | Wdr36               | WD repeat domain 36                     | 0.0438284  | 0.356707 | 0.12287  | 8 | 0.905241 | 0.42        | 0.42        |
| Q3TBW2 | Mrpl10              | Large ribosomal subunit protein uL10r   | 0.2293406  | 0.247077 | 0.92821  | 8 | 0.38045  | 0.4         | 0.4         |
| Q3TC46 | Pat1                | Protein PAT1 homolog 1 (PAT1-like pro   | -0.1366894 | 0.298806 | -0.45745 | 1 | 0.726868 | 0.7         | 0           |
| Q3TC72 | Fahd2 Fahd2a        | Fumarylacetoacetate hydrolase domain    | 0.1768143  | 0.289339 | 0.6111   | 8 | 0.558095 | 0.433333333 | 0.433333333 |
| Q3TC93 | Hs1bp3              | HCLS1-binding protein 3 (HS1-bindin     | 0.1384319  | 0.302958 | 0.45693  | 7 | 0.66156  | 0.5         | 0.4         |
| Q3TCH7 | Cul4a               | Cullin-4A (CUL-4A)                      | -0.2601429 | 0.44671  | -0.58235 | 2 | 0.619234 | 0.7         | 0.1         |
| Q3TCJ1 | Abraxas2 Abro1 Fan  | BRISC complex subunit Abraxas 2 (Ab     | 0.5264319  | 0.233661 | 2.25297  | 8 | 0.054315 | 0.342857143 | 0.342857143 |
| Q3TCR7 | Dnm2                | dynamins GTPase (EC 3.6.5.5)            | 0.1477926  | 0.183237 | 0.80657  | 8 | 0.443232 | 0.36875     | 0.36875     |
| Q8BH24 | Tm9sf4 Kiaa0255     | Transmembrane 9 superfamily member      | 0.5733448  | 0.229147 | 2.50208  | 8 | 0.036822 | 0.425       | 0.425       |
| Q3TD54 | Ncstn               | Nicastrin                               | -0.2434823 | 0.237064 | -1.02707 | 8 | 0.334436 | 0.5         | 0.5         |
| Q3TDA1 | Osbpl2              | Oxysterol-binding protein               | -0.2068268 | 0.318291 | -0.6498  | 4 | 0.551249 | 0.6         | 0.2         |
| Q3TDD9 | Ppp1r21 Ccdc128 f   | Protein phosphatase 1 regulatory subu   | 0.098042   | 0.285937 | 0.34288  | 8 | 0.740524 | 0.514285714 | 0.514285714 |
| Q3TDN2 | Faf2 Kiaa0887 Ubxc  | FAS-associated factor 2 (UBX domain-    | -0.0845248 | 0.258546 | -0.32692 | 8 | 0.752116 | 0.36        | 0.36        |
| Q3TDQ1 | Stt3b Simp          | Dolichyl-diphosphooligosaccharide--p    | -0.3899326 | 0.31912  | -1.2219  | 8 | 0.256525 | 0.471428571 | 0.471428571 |
| Q3TEA8 | Hp1bp3              | Heterochromatin protein 1-binding pro   | 0.3086306  | 0.385787 | 0.8      | 8 | 0.446812 | 0.295454545 | 0.295454545 |
| Q3TEL3 | Diablo              | Direct IAP-binding protein with low pl  | 1.1630383  | 1.310292 | 0.88762  | 1 | 0.537857 | 0.7         | 0           |

|        |                     |                                          |            |          |          |   |          |             |             |
|--------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q3TET5 | Pmpcb               | Mitochondrial-processing peptidase su    | 0.3315593  | 0.303392 | 1.09284  | 8 | 0.306276 | 0.481818182 | 0.481818182 |
| Q3TFD2 | Lpcat1 Ayt12        | Lysophosphatidylcholine acyltransfera    | -0.2815421 | 0.23077  | -1.22001 | 8 | 0.257202 | 0.37        | 0.37        |
| Q3TFK5 | Gpatch4 Gpatc4      | G patch domain-containing protein 4      | -0.5041623 | 0.393117 | -1.28247 | 3 | 0.289791 | 0.5         | 0           |
| Q3TG92 | Actc1               | ACTC protein                             | -0.4703887 | 1.433325 | -0.32818 | 2 | 0.773948 | 0.6         | 0           |
| Q3TGF2 | Fam107b             | Protein FAM107B                          | 0.1277161  | 0.545078 | 0.23431  | 8 | 0.820631 | 0.28        | 0.28        |
| Q3THE2 | Myl12b Mrlc2 Mylc2l | Myosin regulatory light chain 12B (Myo   | 0.8211587  | 0.569264 | 1.44249  | 8 | 0.187146 | 0.15        | 0.15        |
| Q3THG9 | Aarsd1 Alax         | Alanyl-tRNA editing protein Aarsd1 (Al   | 0.1743353  | 0.093417 | 1.86621  | 8 | 0.098982 | 0.257894737 | 0.257894737 |
| Q3THJ3 | Eif1ad              | Probable RNA-binding protein EIF1AD      | 0.1936242  | 0.626187 | 0.30921  | 7 | 0.766161 | 0.25        | 0.15        |
| Q3THK3 | Gtf2f1              | General transcription factor IIF subunit | -0.0992566 | 0.259623 | -0.38231 | 8 | 0.712187 | 0.4         | 0.4         |
| Q3THK7 | Gmps                | GMP synthase [glutamine-hydrolyzing]     | 0.186274   | 0.109527 | 1.70072  | 8 | 0.127414 | 0.260344828 | 0.260344828 |
| Q3THS6 | Mat2a               | S-adenosylmethionine synthase isofor     | -0.013687  | 0.1919   | -0.07132 | 8 | 0.944891 | 0.327777778 | 0.327777778 |
| Q9DB27 | Mcts1               | Malignant T-cell-amplified sequence 1 (  | 0.5700131  | 0.165328 | 3.44778  | 8 | 0.008723 | 0.25        | 0.25        |
| Q3TIJ4 | Rtca Rtcd1          | RNA 3'-terminal phosphate cyclase (EC    | 0.2511489  | 0.150499 | 1.66878  | 8 | 0.133714 | 0.346153846 | 0.346153846 |
| Q91VL8 | Terf2ip Rap1 MNCb   | Telomeric repeat-binding factor 2-inter  | 0.563003   | 0.214941 | 2.61934  | 8 | 0.030682 | 0.564285714 | 0.564285714 |
| Q3TIR3 | Ric8a Ric8          | Synembryn-A (Protein Ric-8A)             | 1.895568   | 0.759471 | 2.49591  | 2 | 0.129958 | 0.6         | 0           |
| Q3TIU4 | Pde12               | 2',5'-phosphodiesterase 12 (2'-PDE) (    | -0.1155574 | 0.08005  | -1.44356 | 8 | 0.186854 | 0.3125      | 0.3125      |
| Q3TIV5 | Zc3h15 Dfrp1        | Zinc finger CCCH domain-containing p     | 0.1864961  | 0.21694  | 0.85967  | 8 | 0.414989 | 0.34        | 0.34        |
| Q3TIX9 | Usp39               | Ubiquitin carboxyl-terminal hydrolase    | -0.1174617 | 0.095723 | -1.2271  | 8 | 0.25467  | 0.22        | 0.22        |
| Q3TJ22 | Aamp                | Angio-associated migratory protein       | 0.0073701  | 0.12724  | 0.05792  | 8 | 0.955231 | 0.466666667 | 0.466666667 |
| Q3TJ84 | Paip2               | Polyadenylate-binding protein-interact   | -0.2367002 | 0.265409 | -0.89183 | 4 | 0.422883 | 0.4         | 0           |
| Q3TJZ6 | Fam98a              | Protein FAM98A                           | -0.5245602 | 0.313813 | -1.67157 | 8 | 0.133152 | 0.422222222 | 0.422222222 |
| Q3TKR5 | Rpl5                | Large ribosomal subunit protein uL18     | -0.4036514 | 0.479286 | -0.84219 | 1 | 0.554401 | 0.7         | 0           |
| P52432 | Polr1c Rpo1-1       | DNA-directed RNA polymerases I and II    | 0.561846   | 0.234959 | 2.39125  | 8 | 0.04377  | 0.34        | 0.34        |
| Q3TKY6 | Cwc27 Sdccag10      | Spliceosome-associated protein CWC2      | 0.1240214  | 0.327615 | 0.37856  | 8 | 0.714865 | 0.5         | 0.5         |
| Q3TLH4 | Prrc2c Bat2d Bat2d  | Protein PRRC2C (BAT2 domain-contai       | 0.1004418  | 0.160415 | 0.62614  | 8 | 0.548669 | 0.326153846 | 0.326153846 |
| Q3TLQ0 | Map2 Mtap2          | Microtubule-associated protein           | -0.1011674 | 0.271159 | -0.37309 | 2 | 0.744911 | 0.6         | 0           |
| Q3TM08 | Sumf2               | Sulfatase-modifying factor enzyme doi    | -0.2587196 | 0.377416 | -0.6855  | 6 | 0.518621 | 0.5         | 0.3         |
| Q3TML7 | mt-Co1              | Cytochrome c oxidase subunit 1 (EC 7     | -0.3156954 | 0.251469 | -1.25541 | 8 | 0.244759 | 0.133333333 | 0.133333333 |
| Q3TMP1 | Gtf3c3 AL022818     | General transcription factor IIIC, polyp | -0.2794132 | 0.180121 | -1.55126 | 7 | 0.164779 | 0.49        | 0.39        |
| Q3TN38 | Stx2 Epim           | t-SNARE coiled-coil homology domain      | -1.2806411 | 1.342118 | -0.95419 | 1 | 0.514919 | 0.7         | 0           |
| Q3TN93 | Ubqln1              | Ubiquilin-1                              | 0.0338191  | 0.193996 | 0.17433  | 8 | 0.865938 | 0.25        | 0.25        |
| Q3TNA1 | Xylb                | Xylulose kinase (Xylulokinase) (EC 2.7.  | -0.1381613 | 0.619314 | -0.22309 | 2 | 0.84418  | 0.6         | 0           |
| Q3TNH0 | Tmpo                | Thymopoietin                             | 0.1051895  | 0.426306 | 0.24675  | 8 | 0.811318 | 0.15        | 0.15        |
| Q3TPE9 | Ankmy2              | Ankyrin repeat and MYND domain-cont      | 0.5942306  | 0.77512  | 0.76663  | 5 | 0.477916 | 0.5         | 0.2         |
| Q3TPJ8 | Dync1i2             | Cytoplasmic dynein 1 intermediate ch     | 0.1465622  | 0.193779 | 0.75634  | 8 | 0.47113  | 0.292682927 | 0.292682927 |
| Q3TPX4 | Exoc5 Sec10l1       | Exocyst complex component 5 (Exocy       | -0.578914  | 1.366086 | -0.42378 | 5 | 0.689342 | 0.45        | 0.15        |
| Q3TQI7 |                     | Splicing factor C9orf78 homolog          | -0.0026038 | 0.311595 | -0.00836 | 8 | 0.993537 | 0.433333333 | 0.433333333 |
| Q3TQL4 | Immt                | MICOS complex subunit MIC60 (Mitofi      | 0.2770922  | 0.281114 | 0.98569  | 8 | 0.353153 | 0.3         | 0.3         |

|        |                   |                                           |            |          |          |   |          |             |             |
|--------|-------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q3TRK3 | Dbn1              | ADF-H domain-containing protein           | -0.2312782 | 0.257437 | -0.89839 | 8 | 0.395214 | 0           | 0           |
| Q3TSG4 | Alkbh5 Abh5 Ofoxd | RNA demethylase ALKBH5 (EC 1.14.11        | -0.2060744 | 0.54091  | -0.38098 | 5 | 0.71887  | 0.566666667 | 0.266666667 |
| Q3TSS2 | Ptn               | Pleiotrophin (PTN)                        | -0.8542858 | 0.500025 | -1.70849 | 8 | 0.125924 | 0.516666667 | 0.516666667 |
| Q3TTA7 | Cblb              | E3 ubiquitin-protein ligase CBL-B (EC     | -0.3914009 | 0.553761 | -0.7068  | 3 | 0.530641 | 0.5         | 0           |
| Q3TUE1 | Fubp1             | Far upstream element (FUSE) binding p     | -0.0472161 | 0.236447 | -0.19969 | 8 | 0.846706 | 0.533333333 | 0.533333333 |
| Q3TUH1 | Tamm41            | Phosphatidate cytidylyltransferase, mit   | 0.3291441  | 0.288432 | 1.14115  | 8 | 0.286814 | 0.55        | 0.55        |
| Q3TUU5 | Tex30             | Testis-expressed protein 30               | -0.0689632 | 0.224506 | -0.30718 | 8 | 0.766553 | 0.325       | 0.325       |
| Q3TW27 | Nelfcd Th1l       | Negative elongation factor complex me     | -0.064383  | 0.199829 | -0.32219 | 8 | 0.755567 | 0.371428571 | 0.371428571 |
| Q3TWL2 | Pip4p1 Tmem55b    | Type 1 phosphatidylinositol 4,5-bisph     | 0.8621926  | 0.276658 | 3.11645  | 1 | 0.19767  | 0.7         | 0           |
| Q3TWW8 | Srsf6 Sfrs6 Srp55 | Serine/arginine-rich splicing factor 6 (F | 0.0529674  | 0.268209 | 0.19749  | 8 | 0.848373 | 0.3375      | 0.3375      |
| Q3TWZ9 | Cltb              | Clathrin light chain                      | 0.6187113  | 0.423137 | 1.4622   | 8 | 0.181828 | 0.4         | 0.4         |
| Q3TX08 | Trmt1 D8Ertd812e  | tRNA (guanine(26)-N(2))-dimethyltran      | 0.0791191  | 0.685715 | 0.11538  | 4 | 0.913703 | 0.5         | 0.1         |
| Q3TXP6 | Bcar1             | SH3 domain-containing protein             | 0.3463926  | 0.329755 | 1.05046  | 8 | 0.324202 | 0.445454545 | 0.445454545 |
| Q3TXS7 | Psmd1             | 26S proteasome non-ATPase regulator       | -0.0555664 | 0.132932 | -0.41801 | 8 | 0.686936 | 0.269811321 | 0.269811321 |
| Q3TXT3 | Inip Ssbip1       | SOSS complex subunit C (INTS3- and        | 0.363674   | 0.548115 | 0.6635   | 6 | 0.531662 | 0.4         | 0.2         |
| Q3TYA6 | Mphosph8 Mpp8     | M-phase phosphoprotein 8                  | -0.4768452 | 0.532944 | -0.89474 | 4 | 0.421501 | 0.4         | 0           |
| Q3TYK5 | Pde2a             | Phosphodiesterase (EC 3.1.4.-)            | 0.0122256  | 0.335501 | 0.03644  | 6 | 0.972114 | 0.5         | 0.3         |
| Q3TYS2 | Cybc1 Eros        | Cytochrome b-245 chaperone 1 (Esse        | -0.3276178 | 0.203452 | -1.6103  | 7 | 0.151369 | 0.35        | 0.25        |
| Q3TYX3 | Smyd5 Rai15       | Histone-lysine N-trimethyltransferase     | 0.0007549  | 0.219202 | 0.00344  | 8 | 0.997337 | 0.45        | 0.45        |
| Q3TZX8 | Nol9              | Polynucleotide 5'-hydroxyl-kinase NOL     | -0.4081678 | 0.27839  | -1.46617 | 6 | 0.19296  | 0.45        | 0.25        |
| Q3TZZ3 | Mia2 Ctage5 Mgea6 | Melanoma inhibitory activity protein 2    | 0.5753053  | 0.394582 | 1.45801  | 8 | 0.182948 | 0.557142857 | 0.557142857 |
| Q3U0K8 | Ogfod1 Kiaa1612   | Prolyl 3-hydroxylase OGFOD1 (EC 1.1.      | 0.6260996  | 0.444618 | 1.40817  | 6 | 0.208726 | 0.6         | 0.4         |
| Q3U0V1 | Khsrp Fubp2       | Far upstream element-binding protein      | 0.1245515  | 0.11544  | 1.07893  | 8 | 0.312072 | 0.235294118 | 0.235294118 |
| Q3U0Z3 | Daxx              | Death domain-associated protein 6 (D      | 0.1780125  | 0.333947 | 0.53306  | 7 | 0.610493 | 0.5         | 0.4         |
| Q3U131 | Igfbp7            | Insulin-like growth factor-binding prot   | 0.2557325  | 0.188542 | 1.35637  | 2 | 0.307808 | 0.6         | 0           |
| Q3U155 | Ccdc174           | Coiled-coil domain-containing protein     | -0.1372812 | 1.0748   | -0.12773 | 6 | 0.902538 | 0.2         | 0           |
| Q3U186 | Rars2 Rarst       | Probable arginine--tRNA ligase, mitoch    | -0.505487  | 1.443679 | -0.35014 | 1 | 0.785588 | 0.7         | 0           |
| Q3U1G5 | Isg20l2           | Interferon-stimulated 20 kDa exonucle     | 0.2831902  | 0.274315 | 1.03235  | 8 | 0.332104 | 0.4         | 0.4         |
| Q3U1J4 | Ddb1              | DNA damage-binding protein 1 (DDB p       | -0.2229827 | 0.130203 | -1.71258 | 8 | 0.125145 | 0.261702128 | 0.261702128 |
| Q3U1T3 | Brms1l            | Breast cancer metastasis-suppressor 1     | -0.1827934 | 0.125008 | -1.46225 | 2 | 0.281184 | 0.65        | 0.05        |
| Q3U1V6 | Uevld Attp Uev3   | Ubiquitin-conjugating enzyme E2 varia     | -0.3329254 | 0.317613 | -1.04821 | 1 | 0.485018 | 0.7         | 0           |
| Q80VC9 | Camsap3 Kiaa1543  | Calmodulin-regulated spectrin-associa     | 0.5581254  | 0.11346  | 4.91914  | 2 | 0.038929 | 0.7         | 0.1         |
| Q3U276 | Sdhaf1 Lymr8      | Succinate dehydrogenase assembly fac      | -0.2988432 | 0.200086 | -1.49357 | 5 | 0.195511 | 0.3         | 0           |
| Q3U292 | H1f3 Hist1h1d     | H15 domain-containing protein             | 0.4011686  | 0.321091 | 1.24939  | 8 | 0.246836 | 0           | 0           |
| Q3U2G2 | Hspa4             | Heat shock 70 kDa protein 4               | 0.0332728  | 0.070875 | 0.46946  | 8 | 0.651272 | 0.198795181 | 0.198795181 |
| Q3U2K0 | Fam193b Kiaa1931  | Protein FAM193B                           | -0.0863548 | 0.113182 | -0.76297 | 4 | 0.487996 | 0.6         | 0.2         |
| Q3U2P1 | Sec24a            | Protein transport protein Sec24A (SEC     | -0.1185741 | 0.264557 | -0.4482  | 8 | 0.665899 | 0.35        | 0.35        |
| Q3U308 | Ctu2 Ncs2         | Cytoplasmic tRNA 2-thiolation protein     | -0.2710162 | 0.171307 | -1.58205 | 8 | 0.152296 | 0.5         | 0.5         |

|            |                     |                                          |            |          |          |    |          |              |              |
|------------|---------------------|------------------------------------------|------------|----------|----------|----|----------|--------------|--------------|
| Q3U3C9-4   | Gse1 Kiaa0182       | Genetic suppressor element 1             | 0.2909554  | 0.345805 | 0.84139  | 8  | 0.424566 | 0.4          | 0.4          |
| Q3U3D7     | Tmem131l Kiaa0922   | Transmembrane protein 131-like           | -0.8527254 | 0.773017 | -1.10311 | 2  | 0.384959 | 0.6          | 0            |
| Q3U3E2     | Fam117b Als2cr13    | Protein FAM117B (Amyotrophic lateral     | 0.4879994  | 0.296353 | 1.64669  | 4  | 0.174968 | 0.7          | 0.3          |
| Q3U3I9     | Znf865 Zfp865       | Zinc finger protein 865                  | -0.4072888 | 1.313281 | -0.31013 | 1  | 0.808553 | 0.7          | 0            |
| Q3U3T8     | Wdr62               | WD repeat-containing protein 62          | -0.4627785 | 0.418451 | -1.10593 | 4  | 0.330792 | 0.6          | 0.2          |
| Q3U422     | Ndufv3              | NADH:ubiquinone oxidoreductase cor       | 0.3734809  | 0.409441 | 0.91217  | 8  | 0.388339 | 0.4333333333 | 0.4333333333 |
| Q3U487     | Hectd3              | E3 ubiquitin-protein ligase HECTD3 (E    | -0.1967001 | 0.434001 | -0.45322 | 1  | 0.729098 | 0.7          | 0            |
| Q3U4A0     | Fbxl18              | Uncharacterized protein                  | -0.0928018 | 0.385124 | -0.24097 | 6  | 0.817605 | 0.5333333333 | 0.3333333333 |
| Q3U4W8     | Usp5                | Ubiquitin carboxyl-terminal hydrolase    | 0.1235042  | 0.135184 | 0.9136   | 8  | 0.387633 | 0.159090909  | 0.159090909  |
| Q9Z0P5     | Twf2 Ptk9l          | Twinfilin-2 (A6-related protein) (mA6R   | 0.5523157  | 0.208754 | 2.64577  | 8  | 0.029449 | 0.445454545  | 0.445454545  |
| Q8R570     | Snap47              | Synaptosomal-associated protein 47 (     | 0.5412607  | 0.229666 | 2.35673  | 8  | 0.046193 | 0.3125       | 0.3125       |
| Q3U5F4     | Yrdc Irip           | Threonylcarbamoyl-AMP synthase (EC       | 0.2350793  | 0.311199 | 0.7554   | 8  | 0.471662 | 0.38         | 0.38         |
| Q8BFQ1     | Psap                | Prosaposin                               | 0.5371721  | 0.229674 | 2.33885  | 8  | 0.047501 | 0.35         | 0.35         |
| Q3U821     | Wdr75 Utp17         | WD repeat-containing protein 75 (U3 s    | -0.1779333 | 0.180192 | -0.98747 | 7  | 0.356309 | 0.4          | 0.3          |
| Q3U8Y7     | Psmc3               | AAA+ ATPase domain-containing prote      | -0.3123731 | 0.312559 | -0.9994  | 8  | 0.346865 | 0.25         | 0.25         |
| A0A140T8T5 | Map4                | Microtubule-associated protein           | 0.5332504  | 0.182218 | 2.92644  | 4  | 0.042966 | 0.6          | 0.2          |
| Q3U9G9     | Lbr                 | Delta(14)-sterol reductase LBR (Delta-   | -0.2298194 | 0.198865 | -1.15566 | 8  | 0.281168 | 0.284615385  | 0.284615385  |
| Q3U9N8     | Impdh2 IMPDH        | Inosine-5'-monophosphate dehydroge       | 0.112333   | 0.078699 | 1.42738  | 8  | 0.191315 | 0.206666667  | 0.206666667  |
| Q3UA06     | Trip13 Pch2         | Pachytene checkpoint protein 2 homo      | 0.078017   | 0.397747 | 0.19615  | 8  | 0.849386 | 0.383333333  | 0.383333333  |
| Q3UA07     | Srsf10 Fusip1 Sfrs1 | RRM domain-containing protein            | -0.0440108 | 0.218009 | -0.20188 | 8  | 0.845053 | 0.353846154  | 0.353846154  |
| Q3UA16     | Spc25 Spbc25        | Kinetochore protein Spc25                | 0.2162697  | 0.323871 | 0.66777  | 8  | 0.523076 | 0.333333333  | 0.333333333  |
| Q3UA32     | Galnt2              | Polypeptide N-acetylgalactosaminyltra    | 0.6904018  | 0.318642 | 2.1667   | 7  | 0.066943 | 0.566666667  | 0.466666667  |
| Q3UA53     | Ppa1 Pyp            | Inorganic pyrophosphatase (EC 3.6.1.     | 0.3211519  | 0.147089 | 2.18339  | 2  | 0.160681 | 0.6          | 0            |
| Q3UC73     | Ppic                | Peptidyl-prolyl cis-trans isomerase (PP  | 0.1597875  | 0.145614 | 1.09734  | 8  | 0.304421 | 0.214285714  | 0.214285714  |
| Q3UCQ1     | Foxk2 Ilf1          | Forkhead box protein K2 (Cellular tran   | -0.495996  | 0.470345 | -1.05454 | 4  | 0.351121 | 0.566666667  | 0.166666667  |
| Q3UD01     | Atxn7l3b            | Ataxin-7-like protein 3B                 | -0.1928693 | 0.194335 | -0.99246 | 7  | 0.354033 | 0.3          | 0.2          |
| Q3UDE2     | Ttll12              | Tubulin--tyrosine ligase-like protein 12 | 0.1969525  | 0.135869 | 1.44958  | 8  | 0.185218 | 0.326190476  | 0.326190476  |
| Q3UDK1     | Traf1 Fln29         | TRAF-type zinc finger domain-containi    | #NAME?     | NA       | NA       | NA | NA       | NA           | NA           |
| Q3UDS7     | Adpgk               | ADP-dependent glucokinase                | -0.0061551 | 0.302101 | -0.02037 | 8  | 0.984244 | 0.3          | 0.3          |
| Q3UDX9     | Gns                 | Sulfatase N-terminal domain-containin    | 0.2351449  | 0.351861 | 0.66829  | 6  | 0.528805 | 0.4333333333 | 0.2333333333 |
| Q3UE37     | Ube2z D11Moh35      | Ubiquitin-conjugating enzyme E2 Z (EC    | -0.2272211 | 0.359316 | -0.63237 | 8  | 0.544789 | 0.36         | 0.36         |
| Q3UE92     | Xpnpep1             | X-prolyl aminopeptidase (aminopeptid     | 0.1738055  | 0.101244 | 1.71669  | 8  | 0.124367 | 0.431818182  | 0.431818182  |
| Q3UEB3-2   | Puf60 Siahbp1       | Poly(U)-binding-splicing factor PUF60    | -0.191856  | 0.109998 | -1.74418 | 8  | 0.119284 | 0            | 0            |
| Q3UEB4     | Mvk                 | Mevalonate kinase (MK) (EC 2.7.1.36)     | -0.1754381 | 0.250452 | -0.70049 | 8  | 0.503483 | 0.34         | 0.34         |
| Q3UFB2     | Znhit6 Bcd1         | Box C/D snoRNA protein 1 (Zinc finger    | 0.2618261  | 0.346833 | 0.7549   | 2  | 0.529092 | 0.6          | 0            |
| Q3UFF7     | Lyplal1             | Lysophospholipase-like protein 1 (EC     | -0.194178  | 0.366789 | -0.5294  | 3  | 0.633202 | 0.6          | 0.1          |
| Q3UFR4     | Slc1a5              | Amino acid transporter                   | -0.0675908 | 0.224059 | -0.30167 | 6  | 0.773089 | 0.566666667  | 0.366666667  |
| Q3UFS0     | Zyg11b Kiaa1730     | Protein zyg-11 homolog B                 | 1.3696718  | 0.558468 | 2.45255  | 3  | 0.091471 | 0.5          | 0            |

|          |                   |                                          |            |          |          |    |          |             |             |
|----------|-------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q3UFY7   | Nt5c3b Nt5c3l     | 7-methylguanosine phosphate-specific     | 0.1821541  | 0.172706 | 1.0547   | 8  | 0.322369 | 0.36        | 0.36        |
| Q3UFY8   | Trmt10c Mrpp1 Rg9 | tRNA methyltransferase 10 homolog C      | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| Q3UGC7   | Eif3j1 Eif3s1-1   | Eukaryotic translation initiation factor | -0.0767177 | 0.201478 | -0.38077 | 8  | 0.713282 | 0.184615385 | 0.184615385 |
| Q3UGP9   | Lrrc58            | Leucine-rich repeat-containing protein   | 0.7225699  | 0.576819 | 1.25268  | 5  | 0.265718 | 0.62        | 0.32        |
| Q3UGR5   | Hdhd2             | Haloacid dehalogenase-like hydrolase c   | 0.8833623  | 0.440997 | 2.0031   | 8  | 0.08013  | 0.2125      | 0.2125      |
| Q3UGS4   | Mcrip1 Fam195b    | Mapk-regulated corepressor-interactin    | 0.0654829  | 0.132056 | 0.49587  | 8  | 0.63332  | 0.283333333 | 0.283333333 |
| Q3UGS9   | Clpb Skd3         | Uncharacterized protein                  | -0.1705793 | 0.287299 | -0.59373 | 8  | 0.569094 | 0.375       | 0.375       |
| Q3UGZ4   | Sptbn2 Spnb3      | Spectrin beta chain                      | -0.0149293 | 0.156175 | -0.09559 | 8  | 0.926195 | 0.425490196 | 0.425490196 |
| Q3UH60   | Dip2b Kiaa1463    | Disco-interacting protein 2 homolog B    | -0.3664338 | 0.311773 | -1.17532 | 8  | 0.273658 | 0.411111111 | 0.411111111 |
| Q3UH66-5 | Wnk2 Kiaa1760     | Serine/threonine-protein kinase WNK2     | 0.1315002  | 0.205486 | 0.63995  | 8  | 0.540098 | 0.411111111 | 0.411111111 |
| Q3UH85   | Nol4l 8430427H17  | Nucleolar protein 4-like                 | 0.0340064  | 0.122564 | 0.27746  | 8  | 0.788464 | 0.428571429 | 0.428571429 |
| Q3UHB8   | Ccdc177 Gm1568    | Coiled-coil domain-containing protein    | 0.0550691  | 0.356283 | 0.15457  | 3  | 0.886977 | 0.6         | 0.1         |
| Q3UHC0   | Tnrc6c Kiaa1582   | Trinucleotide repeat-containing gene 6   | 0.4539167  | 0.352704 | 1.28696  | 8  | 0.234094 | 0.45        | 0.45        |
| Q3UHC7   | Dab2ip Kiaa1743   | Disabled homolog 2-interacting protei    | 0.1273965  | 0.26207  | 0.48612  | 6  | 0.644128 | 0.2         | 0           |
| Q3UHD6   | Snx27 Kiaa0488    | Sorting nexin-27                         | 0.1646102  | 0.299779 | 0.54911  | 8  | 0.597921 | 0.5         | 0.5         |
| Q3UHH0   | Aak1 Kiaa1048     | AP2-associated protein kinase 1 (EC 2    | -0.1277396 | 0.24771  | -0.51568 | 8  | 0.620021 | 0.381818182 | 0.381818182 |
| Q8BKE9   | Ift74 Ccdc2 Cmg1  | Intraflagellar transport protein 74 hom  | 0.5282881  | 0.202453 | 2.60944  | 5  | 0.047702 | 0.6         | 0.3         |
| Q3UHK8   | Tnrc6a Kiaa1460   | Trinucleotide repeat-containing gene 6   | -1.5460722 | 0.408029 | -3.78912 | 2  | 0.063127 | 0.6         | 0           |
| Q3UHX0   | Nol8              | Nucleolar protein 8                      | 0.8620853  | 0.665822 | 1.29477  | 8  | 0.231517 | 0.366666667 | 0.366666667 |
| Q3UHX2   | Pdap1             | 28 kDa heat- and acid-stable phospho     | 0.1153002  | 0.328797 | 0.35067  | 8  | 0.734889 | 0.147058824 | 0.147058824 |
| Q3UHX9   | Spout1 D2Wsu81e   | Putative methyltransferase C9orf114 t    | 0.1514619  | 0.282761 | 0.53565  | 8  | 0.606765 | 0.5         | 0.5         |
| Q3UHZ3   | Dnmt1             | DNA (cytosine-5)-methyltransferase (E    | -0.1505221 | 0.419415 | -0.35889 | 5  | 0.734337 | 0.6         | 0.3         |
| Q3UI43   | Babam1 Merit40 Nb | BRISC and BRCA1-A complex member         | 0.1702056  | 0.15392  | 1.10581  | 8  | 0.300952 | 0.225       | 0.225       |
| Q3UIA2   | Arhgap17          | Rho GTPase-activating protein 17 (Neu    | -0.0779687 | 0.417184 | -0.18689 | 8  | 0.856397 | 0.55        | 0.55        |
| Q3UID0   | Smarcc2           | SWI/SNF related, matrix associated, act  | 0.1490299  | 0.108903 | 1.36846  | 8  | 0.208362 | 0.402941176 | 0.402941176 |
| Q3UIG8   | Prmt1 Hrmt1l2     | type I protein arginine methyltransfera  | 0.0306921  | 0.202527 | 0.15155  | 8  | 0.883297 | 0.22        | 0.22        |
| Q3UIL6   | Plekha7 Hadp1     | Pleckstrin homology domain-containin     | 0.6262706  | 0.713618 | 0.8776   | 3  | 0.444769 | 0.6         | 0.1         |
| Q3UIU2   | Ndubf6 Gm137      | NADH dehydrogenase [ubiquinone] 1 t      | 0.0127047  | 0.280169 | 0.04535  | 7  | 0.965098 | 0.533333333 | 0.433333333 |
| Q3UIX4   | Srsf11 Sfrs11     | Serine and arginine-rich splicing factor | 0.0694016  | 0.174642 | 0.39739  | 8  | 0.70147  | 0.172727273 | 0.172727273 |
| Q3UJ04   | Rsf1 Hbxap        | PHD-type domain-containing protein       | -0.2259261 | 0.260552 | -0.86711 | 7  | 0.414617 | 0.45        | 0.35        |
| Q3UJ35   | Meis2 Mrg1        | Homeobox domain-containing protein       | 0.6434359  | 0.760382 | 0.8462   | 2  | 0.486543 | 0.6         | 0           |
| Q3UJB0   | Sf3b2             | Splicing factor 3B subunit 2             | 0.1929901  | 0.204158 | 0.9453   | 8  | 0.372179 | 0.3         | 0.3         |
| Q3UJQ2   | Hmgcs1            | Hydroxymethylglutaryl-coenzyme A syn     | 0.1988812  | 0.416192 | 0.47786  | 5  | 0.652911 | 0.3         | 0           |
| Q8BZR9   | Ncbp3             | Nuclear cap-binding protein subunit 3    | 0.5184923  | 0.130771 | 3.96487  | 8  | 0.004149 | 0.375       | 0.375       |
| Q3UKJ7   | Smu1              | WD40 repeat-containing protein SMU1      | -0.1712709 | 0.185945 | -0.92108 | 8  | 0.383943 | 0.356521739 | 0.356521739 |
| Q3UKS5   | Atf2              | Cyclic AMP-dependent transcription fa    | -0.057946  | 0.312521 | -0.18541 | 8  | 0.857518 | 0.525       | 0.525       |
| Q3UKV0   | Eif2b3            | Translation initiation factor eIF2B subu | 0.3328016  | 0.325982 | 1.02092  | 8  | 0.337169 | 0.6         | 0.6         |
| Q3UL36   | Arglu1            | Arginine and glutamate-rich protein 1    | 0.8271464  | 0.694075 | 1.19172  | 8  | 0.267521 | 0.325       | 0.325       |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q3UL40 | Tacc2              | Transforming acidic coiled-coil-contain  | 0.2178158  | 0.203975 | 1.06786  | 8 | 0.316746 | 0.446153846 | 0.446153846 |
| Q3UL78 | Cdc42              | Cell division control protein 42 homol   | -0.3093388 | 0.489722 | -0.63166 | 8 | 0.54523  | 0.2         | 0.2         |
| Q3ULD5 | Mccc2              | Methylcrotonoyl-CoA carboxylase beta     | -0.1329757 | 0.179919 | -0.73908 | 8 | 0.480976 | 0.466666667 | 0.466666667 |
| Q3ULJ0 | Gpd1l Kiaa0089     | Glycerol-3-phosphate dehydrogenase       | 0.5254819  | 0.678468 | 0.77451  | 8 | 0.460903 | 0.3         | 0.3         |
| Q3ULL6 | Upf3b              | UPF3 regulator of nonsense transcript    | -0.2186922 | 0.588593 | -0.37155 | 8 | 0.719875 | 0.6         | 0.6         |
| Q3ULP8 | Pus7               | TRUD domain-containing protein           | -0.1958316 | 0.32656  | -0.59968 | 8 | 0.565313 | 0.51        | 0.51        |
| Q3UM18 | Lsg1 D16Bwg1547e   | Large subunit GTPase 1 homolog (EC 3     | 0.0922728  | 0.454143 | 0.20318  | 6 | 0.845709 | 0.6         | 0.4         |
| Q3UM45 | Ppp1r7 Sds22       | Protein phosphatase 1 regulatory subu    | 0.2856629  | 0.197392 | 1.44719  | 8 | 0.185867 | 0.285185185 | 0.285185185 |
| Q3UMC0 | Afg2a Spaf Spata5  | ATPase family gene 2 protein homolog     | -0.0031732 | 0.119939 | -0.02646 | 8 | 0.979541 | 0.4         | 0.4         |
| Q3UMG4 | Ina                | IF rod domain-containing protein         | 0.3667787  | 0.226895 | 1.61651  | 7 | 0.150017 | 0.35        | 0.25        |
| Q3UMG5 | Lrch2 Kiaa1495     | Leucine-rich repeat and calponin homc    | 0.0155962  | 0.242005 | 0.06445  | 8 | 0.950197 | 0.381818182 | 0.381818182 |
| Q3UMT1 | Ppp1r12c Mbs85     | Protein phosphatase 1 regulatory subu    | 0.0634461  | 0.244938 | 0.25903  | 6 | 0.80427  | 0.666666667 | 0.466666667 |
| Q3UMU9 | Hdgfl2 Hdgfrp2     | Hepatoma-derived growth factor-relate    | 0.3694665  | 0.441488 | 0.83687  | 8 | 0.426958 | 0.3125      | 0.3125      |
| Q7TNP2 | Ppp2r1b            | Serine/threonine-protein phosphatase     | 0.505358   | 0.205905 | 2.45433  | 8 | 0.039668 | 0.388888889 | 0.388888889 |
| Q3UN04 | Usp30              | Ubiquitin carboxyl-terminal hydrolase    | 0.1850138  | 0.541596 | 0.34161  | 3 | 0.755174 | 0.5         | 0           |
| Q3UN75 | B3gat3             | Galactosylgalactosylxylosylprotein 3-b   | -0.3175555 | 0.930948 | -0.34111 | 1 | 0.790722 | 0.7         | 0           |
| Q3UNH4 | Gprin1             | G protein-regulated inducer of neurite   | 0.8489852  | 0.478307 | 1.77498  | 8 | 0.113818 | 0.447058824 | 0.447058824 |
| Q3UNJ3 | Fkbp10             | peptidylprolyl isomerase (EC 5.2.1.8)    | 0.2450282  | 0.302058 | 0.8112   | 8 | 0.440718 | 0.466666667 | 0.466666667 |
| Q3UPH1 | Prrc1              | Protein PRRC1 (Proline-rich and coilec   | 0.2095878  | 0.319098 | 0.65681  | 8 | 0.529738 | 0.355555556 | 0.355555556 |
| Q3UPH7 | Arhgef40 Solo      | Rho guanine nucleotide exchange factc    | 0.5290164  | 0.430937 | 1.2276   | 6 | 0.265572 | 0.45        | 0.25        |
| Q3UPL0 | Sec31a Sec311l     | Protein transport protein Sec31A (SEC    | 0.2225058  | 0.17492  | 1.27204  | 8 | 0.239087 | 0.3475      | 0.3475      |
| Q3UPV4 | Map1b Mtap1b       | Microtubule-associated protein 1B        | -0.4893061 | 1.038621 | -0.47111 | 7 | 0.65189  | 0.1         | 0           |
| Q3UQ28 | Pxdn Kiaa0230      | Peroxidasin homolog (EC 1.11.2.-) [Cl    | 0.3023463  | 0.397868 | 0.75992  | 5 | 0.481578 | 0.3         | 0           |
| Q3UQ44 | Iqgap2             | Ras GTPase-activating-like protein IQG   | 0.2636215  | 0.170427 | 1.54683  | 8 | 0.16049  | 0.28        | 0.28        |
| Q3UQ67 | Osgep              | N(6)-L-threonylcarbamoyladenine syni     | 0.1059582  | 0.144331 | 0.73414  | 8 | 0.483825 | 0.19        | 0.19        |
| Q3UQA7 | Selenoh            | Selenoprotein H (SelH)                   | 0.036299   | 0.281166 | 0.1291   | 8 | 0.900464 | 0.275       | 0.275       |
| Q3UQN2 | Fcho2              | F-BAR domain only protein 2              | 0.2007523  | 0.301031 | 0.66688  | 1 | 0.62557  | 0.7         | 0           |
| Q3UQU0 | Brd9               | Bromodomain-containing protein 9         | -0.4721467 | 0.332964 | -1.41801 | 6 | 0.205972 | 0.55        | 0.35        |
| Q3URE1 | Acsf3              | Malonate--CoA ligase ACSF3, mitochor     | -0.7702428 | 0.920099 | -0.83713 | 1 | 0.556292 | 0.7         | 0           |
| Q3URQ0 | Tex10              | Testis-expressed protein 10              | 0.0451774  | 0.384179 | 0.11759  | 8 | 0.909288 | 0.4         | 0.4         |
| Q8BGS0 | Mak16 Rbm13        | Protein MAK16 homolog (Protein RBM       | 0.4996853  | 0.214422 | 2.33038  | 8 | 0.048133 | 0.4         | 0.4         |
| Q3URR8 | Nubpl              | Iron-sulfur protein NUBPL                | -0.0484523 | 3.326329 | -0.01457 | 1 | 0.990727 | 0.7         | 0           |
| Q3URS9 | Ccdc51 Mitok       | Mitochondrial potassium channel (MIT     | -0.143797  | 0.436849 | -0.32917 | 7 | 0.751658 | 0.5         | 0.4         |
| Q3URU2 | Peg3 Kiaa0287 Pw1  | Paternally-expressed gene 3 protein (A   | -0.4222649 | 0.177702 | -2.37625 | 3 | 0.097949 | 0.7         | 0.2         |
| Q3URU9 | Pde6d              | Retinal rod rhodopsin-sensitive cGMP     | 0.0169091  | 0.285445 | 0.05924  | 7 | 0.954419 | 0.4         | 0.3         |
| Q3US17 | Znf48 Zfp48 Zfp553 | Zinc finger protein 48 (Zinc finger prot | 0.5004924  | 0.684228 | 0.73147  | 8 | 0.485364 | 0.433333333 | 0.433333333 |
| Q3US81 | Gpm6b              | Neuronal membrane glycoprotein M6-b      | -0.2000756 | 0.371825 | -0.53809 | 8 | 0.605157 | 0.3         | 0.3         |
| Q3USH5 | Sfswap Sfrs8 Srsf8 | Splicing factor, suppressor of white-ap  | -0.0214313 | 0.262615 | -0.08161 | 7 | 0.937243 | 0.475       | 0.375       |

|          |         |          |                                              |            |          |          |   |          |              |              |
|----------|---------|----------|----------------------------------------------|------------|----------|----------|---|----------|--------------|--------------|
| Q3USJ8   | Fchsd2  | Kiaa0769 | St F-BAR and double SH3 domains protei       | 0.0400652  | 0.283749 | 0.1412   | 7 | 0.89169  | 0.6          | 0.5          |
| Q3UTJ2-2 | Sorbs2  | Argbp2   | Kiaa Sorbin and SH3 domain-containing pr     | -0.2802042 | 0.259829 | -1.07842 | 8 | 0.312287 | 0.38         | 0.38         |
| Q3UTQ7   | Prdm10  | Gm1112   | Tr PR domain zinc finger protein 10 (EC 2    | 0.2676255  | 0.293687 | 0.91126  | 4 | 0.413707 | 0.4          | 0            |
| Q3UUQ7   | Pgap1   |          | GPI inositol-deacylase (EC 3.1.-.-) (Pos     | -0.2817924 | 0.219824 | -1.2819  | 8 | 0.235778 | 0.3533333333 | 0.3533333333 |
| Q3UVV17  | Krt76   |          | Keratin, type II cytoskeletal 2 oral (Kera   | 0.8182327  | 0.735298 | 1.11279  | 8 | 0.298115 | 0            | 0            |
| Q3UVV70  | Pdp1    | Ppm2c    | [Pyruvate dehydrogenase [acetyl-transf       | -0.1165775 | 0.654338 | -0.17816 | 3 | 0.869948 | 0.5          | 0            |
| Q3UVG3   | Fam91a1 | D15Ert   | Protein FAM91A1                              | 0.1031602  | 0.372762 | 0.27675  | 5 | 0.793051 | 0.6          | 0.3          |
| Q3UVL4   | Vps51   | Ffr      | Vacuolar protein sorting-associated pr       | -1.1083925 | 0.609741 | -1.81781 | 5 | 0.128772 | 0.3          | 0            |
| Q3UWE6   | Wdr20   | Wdr20a   | WD repeat domain 20                          | -0.17422   | 1.389237 | -0.12541 | 3 | 0.908133 | 0.5          | 0            |
| Q3UWL8   | Pfdn4   |          | Prefoldin subunit 4                          | -0.0402515 | 1.471507 | -0.02735 | 6 | 0.979065 | 0.5          | 0.3          |
| Q3UX10   | Tubal3  |          | Tubulin alpha chain-like 3 (EC 3.6.5.-)      | 0.1899318  | 0.387338 | 0.49035  | 7 | 0.638881 | 0.4          | 0.3          |
| Q3UXG7   | Pofut1  |          | GDP-fucose protein O-fucosyltransfer         | -0.0325193 | 0.274495 | -0.11847 | 8 | 0.908616 | 0.366666667  | 0.366666667  |
| Q3UXJ3   | Hnrnp1l |          | RRM domain-containing protein                | 0.9462207  | 1.324826 | 0.71422  | 3 | 0.526646 | 0.5          | 0            |
| Q3UXK8   | Bgn     |          | Biglycan                                     | 0.406335   | 0.795887 | 0.51054  | 2 | 0.660441 | 0.65         | 0.05         |
| Q3UXM3   | Maged1  |          | MAGE domain-containing protein               | 0.2822784  | 0.466064 | 0.60566  | 8 | 0.561523 | 0.391666667  | 0.391666667  |
| Q3UY34   | Custos  |          | Protein CUSTOS                               | -0.0487317 | 0.132422 | -0.368   | 8 | 0.722418 | 0.1          | 0.1          |
| Q3UYP2   | Pcyox1  |          | Prenylcysteine oxidase 1 (EC 1.8.3.5)        | -0.0431541 | 0.166714 | -0.25885 | 8 | 0.802286 | 0.39         | 0.39         |
| Q3UYV4   | Gmeb1   |          | SAND domain-containing protein               | -0.1754538 | 0.074267 | -2.36248 | 1 | 0.254913 | 0.7          | 0            |
| Q3UYV9   | Ncbp1   | Cbp80    | Nuclear cap-binding protein subunit 1        | -0.1918648 | 0.15812  | -1.21341 | 8 | 0.259579 | 0.3375       | 0.3375       |
| Q3UZ28   | Acin1   |          | SAP domain-containing protein                | -0.2822705 | 0.313471 | -0.90047 | 8 | 0.39417  | 0            | 0            |
| Q3UZ39   | Lrrfip1 | Flap     | Leucine-rich repeat flightless-interactin    | -0.1299083 | 0.400033 | -0.32474 | 6 | 0.756399 | 0.4          | 0.2          |
| Q3UZ16   | Noc2l   |          | Uncharacterized protein                      | -0.2813683 | 0.973576 | -0.289   | 8 | 0.779925 | 0.46         | 0.46         |
| Q3V016   | Hipk4   | Gm162    | Homeodomain-interacting protein kin          | -0.5253026 | 0.58594  | -0.89651 | 6 | 0.404512 | 0.2          | 0            |
| Q3V038   | Ttc9    | Kiaa0227 | Tetratricopeptide repeat protein 9A (TF      | 0.2526667  | 0.406856 | 0.62102  | 3 | 0.578575 | 0.5          | 0            |
| Q3V0C5   | Usp48   | Kiaa4202 | Ubiquitin carboxyl-terminal hydrolase        | 0.0807487  | 0.300148 | 0.26903  | 8 | 0.794715 | 0.5          | 0.5          |
| Q3V0J1   | Tmem237 | Als2cr4  | Transmembrane protein 237 (Amyotro           | 0.1771205  | 0.403702 | 0.43874  | 4 | 0.683506 | 0.4          | 0            |
| Q3V117   | Acly    |          | ATP-citrate synthase (EC 2.3.3.8) (ATP       | -0.0283097 | 0.110077 | -0.25718 | 8 | 0.803531 | 0.232432432  | 0.232432432  |
| Q3V1C9   | Gpc6    |          | Glypican-6                                   | -0.085535  | 0.329655 | -0.25947 | 8 | 0.801826 | 0.3          | 0.3          |
| Q3V1G7   | Zfp951  |          | Uncharacterized protein                      | 0.1128906  | 0.855956 | 0.13189  | 1 | 0.916519 | 0.7          | 0            |
| Q3V1H1   | Ckap2   |          | Cytoskeleton-associated protein 2            | 0.2834099  | 0.503629 | 0.56274  | 6 | 0.594002 | 0.55         | 0.35         |
| Q3V1L4   | Nt5c2   |          | Cytosolic purine 5'-nucleotidase (EC 3       | 0.1630053  | 0.181391 | 0.89864  | 8 | 0.395087 | 0.45         | 0.45         |
| Q3V1L7   | Pofut2  |          | GDP-fucose protein O-fucosyltransfer         | 0.2275614  | 0.241015 | 0.94418  | 8 | 0.372716 | 0.2          | 0.2          |
| Q3V1T4   | P3h1    | Gros1    | Lepre1 Prolyl 3-hydroxylase 1 (EC 1.14.11.7) | -0.6393794 | 0.176394 | -3.62473 | 1 | 0.17137  | 0.7          | 0            |
| Q3V1V3   | Esf1    | Abtap    | ESF1 homolog (ABT1-associated prote          | -0.0293121 | 0.4139   | -0.07082 | 5 | 0.946287 | 0.6          | 0.3          |
| Q3V214   | Polr2e  |          | DNA-directed RNA polymerase II subur         | 0.9212941  | 0.614247 | 1.49988  | 8 | 0.172035 | 0.430769231  | 0.430769231  |
| Q3V300   | Kif22   |          | Kinesin-like protein KIF22                   | -0.3726133 | 0.274192 | -1.35895 | 7 | 0.216321 | 0.5          | 0.4          |
| Q3V3K6   | Pigs    |          | GPI transamidase component PIG-S             | 0.3843543  | 0.260567 | 1.47507  | 8 | 0.178429 | 0.43         | 0.43         |
| Q3V3R1   | Mthfd1l | Fthf     | sdcl1 Monofunctional C1-tetrahydrofolate s   | 0.3625235  | 0.177048 | 2.0476   | 8 | 0.074786 | 0.416666667  | 0.416666667  |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q3ZK22 | Vezt               | Vezatin                                  | 0.372889   | 0.252023 | 1.47958  | 6 | 0.189475 | 0.633333333 | 0.433333333 |
| Q45VK7 | Dync2h1 Dhc1b Dn   | Cytoplasmic dynein 2 heavy chain 1 (C    | 0.2717242  | 0.348544 | 0.7796   | 3 | 0.492478 | 0.666666667 | 0.166666667 |
| Q497H0 | Zfand3 Tex27       | AN1-type zinc finger protein 3 (Testis-  | 0.276708   | 0.135016 | 2.04945  | 4 | 0.109759 | 0.4         | 0           |
| Q499E5 | Stox2 Kiaa1392     | Storkhead-box protein 2                  | 1.5546243  | 1.175473 | 1.32255  | 3 | 0.277768 | 0.5         | 0           |
| Q4FJR0 | Nudt4              | diphosphoinositol-polyphosphate dip      | -0.3085944 | 0.176029 | -1.75309 | 8 | 0.117679 | 0.5         | 0.5         |
| Q4FK66 | Prpf38a            | Pre-mRNA-splicing factor 38A             | -0.1239368 | 0.190923 | -0.64915 | 8 | 0.534432 | 0.425       | 0.425       |
| Q4FZF3 | Ddx49              | Probable ATP-dependent RNA helicase      | -0.6585693 | 0.363535 | -1.81157 | 6 | 0.120013 | 0.35        | 0.15        |
| Q4G0C5 | Ppih               | Peptidyl-prolyl cis-trans isomerase (PP  | 0.154314   | 0.484744 | 0.31834  | 8 | 0.758378 | 0.366666667 | 0.366666667 |
| Q4G5Y1 | Klhdc2             | Kelch domain-containing protein 2 (Er    | -0.2983843 | 0.411971 | -0.72428 | 8 | 0.489528 | 0.566666667 | 0.566666667 |
| Q4JIM5 | Abl2 Arg           | Tyrosine-protein kinase ABL2 (EC 2.7.1   | 0.9900463  | 0.534303 | 1.85297  | 4 | 0.137516 | 0.4         | 0           |
| Q4KML4 | Abrac1             | Costars family protein ABRACL (ABRA      | -0.8023292 | 1.398907 | -0.57354 | 7 | 0.584227 | 0.4         | 0.3         |
| Q4KMM3 | Oxr1 C7 Gm1238     | Oxidation resistance protein 1 (Protein  | 0.3905925  | 0.490084 | 0.79699  | 5 | 0.461608 | 0.55        | 0.25        |
| Q4QQM4 | Trp53i11 Pig11 Tp5 | Tumor protein p53-inducible protein 1    | -0.2192405 | 0.309588 | -0.70817 | 7 | 0.501734 | 0.275       | 0.175       |
| Q4QQP1 | Comm8              | COMM domain containing 8                 | 0.450752   | 0.206528 | 2.18252  | 6 | 0.071811 | 0.6         | 0.4         |
| Q4QY64 | Atad5 Frag1        | ATPase family AAA domain-containing      | -0.1823333 | 0.342041 | -0.53307 | 4 | 0.622223 | 0.65        | 0.25        |
| Q4VA53 | Pds5b Aprin As3 Ki | Sister chromatid cohesion protein PD5    | -0.2828741 | 0.239035 | -1.1834  | 8 | 0.27062  | 0.340909091 | 0.340909091 |
| Q4VAA2 | Cdv3               | Protein CDV3 (Carnitine deficiency-as    | -0.0778152 | 0.157825 | -0.49305 | 8 | 0.635228 | 0.211111111 | 0.211111111 |
| Q4VAA9 | Metap1             | Methionine aminopeptidase (EC 3.4.11     | 0.0987795  | 0.209656 | 0.47115  | 8 | 0.650113 | 0.376923077 | 0.376923077 |
| Q4VBD9 | Gz1f Zfp336        | GDNF-inducible zinc finger protein 1 (i  | -0.3929207 | 0.161481 | -2.43324 | 3 | 0.093061 | 0.5         | 0           |
| Q4VBE8 | Wdr18              | WD repeat-containing protein 18          | 0.0449924  | 0.168194 | 0.2675   | 8 | 0.795849 | 0.41        | 0.41        |
| Q4VC33 | Maea Emp           | E3 ubiquitin-protein transferase MAEA    | -0.2197307 | 0.23113  | -0.95068 | 6 | 0.378473 | 0.5         | 0.3         |
| Q501J6 | Ddx17              | Probable ATP-dependent RNA helicase      | 0.0733344  | 0.105238 | 0.69684  | 8 | 0.505643 | 0.194594595 | 0.194594595 |
| Q501J7 | Phactr4 Kiaa4120   | Phosphatase and actin regulator 4 (Pro   | -0.1587101 | 0.444214 | -0.35728 | 8 | 0.730122 | 0.372727273 | 0.372727273 |
| Q505D1 | Ankrd28            | Serine/threonine-protein phosphatase     | 0.1235759  | 0.274682 | 0.44989  | 8 | 0.664732 | 0.413333333 | 0.413333333 |
| Q505D7 | Opa3               | Optic atrophy 3 protein homolog          | 0.1959827  | 0.574494 | 0.34114  | 7 | 0.743009 | 0.433333333 | 0.333333333 |
| Q505F5 | Lrrc47 Kiaa1185    | Leucine-rich repeat-containing protein   | 0.1081815  | 0.138348 | 0.78195  | 8 | 0.45676  | 0.283333333 | 0.283333333 |
| Q52KE7 | Ccn1l Ania6a Ccn1  | Cyclin-L1 (Cyclin-L) (Cyclin Ania-6a)    | 0.403649   | 0.365895 | 1.10318  | 3 | 0.350497 | 0.5         | 0           |
| Q52KF3 | Spire1             | Protein spire homolog 1                  | -0.587951  | 0.15889  | -3.70036 | 1 | 0.168029 | 0.7         | 0           |
| Q52KG4 | Zbtb45 Gm157 Zfp4  | Zinc finger and BTB domain-containing    | -0.0860826 | 0.347287 | -0.24787 | 3 | 0.820231 | 0.5         | 0           |
| Q52KG9 | Cct6a              | T-complex protein 1 subunit zeta         | 0.2129078  | 0.158569 | 1.34268  | 8 | 0.216224 | 0.186363636 | 0.186363636 |
| Q52KI8 | Srrm1 Pop101       | Serine/arginine repetitive matrix protei | 0.0593462  | 0.238108 | 0.24924  | 8 | 0.809454 | 0.333333333 | 0.333333333 |
| Q542N8 | Palm               | Paralemmin-1 (Paralemmin)                | 0.0711727  | 0.193683 | 0.36747  | 8 | 0.722799 | 0.385       | 0.385       |
| Q543N6 | Ptpa Ppp2r4        | Serine/threonine-protein phosphatase     | 0.1071809  | 0.160178 | 0.66914  | 8 | 0.522245 | 0.269230769 | 0.269230769 |
| Q543R4 | Cpe                | Carboxypeptidase E (EC 3.4.17.10) (C     | 0.1734516  | 0.248841 | 0.69704  | 7 | 0.508259 | 0.525       | 0.425       |
| Q543V3 | Irs1               | Insulin receptor substrate 1             | -0.3344475 | 0.186143 | -1.79672 | 7 | 0.115437 | 0.55        | 0.45        |
| Q544D2 | Id4                | DNA-binding protein inhibitor ID-4 (In   | -0.0701677 | 0.35896  | -0.19548 | 8 | 0.849894 | 0.428571429 | 0.428571429 |
| Q544M1 | Ly6h               | UPAR/Ly6 domain-containing protein       | 0.517573   | 0.425153 | 1.21738  | 1 | 0.437788 | 0.7         | 0           |
| Q545S6 | Elof1              | Transcription elongation factor 1 hom    | 0.3853457  | 0.436611 | 0.88258  | 4 | 0.427311 | 0.4         | 0           |

|          |                     |                                           |            |          |          |    |          |             |             |
|----------|---------------------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q548M4   | Elovl1 ELOVL1 Ssc1  | Elongation of very long chain fatty acid  | -0.553074  | 0.819389 | -0.67498 | 5  | 0.529633 | 0.3         | 0           |
| Q561M1   | Acp1                | Low molecular weight phosphotyrosin       | -0.1986568 | 0.302993 | -0.65565 | 8  | 0.530449 | 0.3         | 0.3         |
| Q569Z5   | Ddx46 Kiaa0801      | Probable ATP-dependent RNA helicase       | 0.0908264  | 0.249155 | 0.36454  | 8  | 0.724904 | 0.396774194 | 0.396774194 |
| Q569Z6   | Thrap3 Trap150      | Thyroid hormone receptor-associated       | 0.2488833  | 0.198558 | 1.25346  | 8  | 0.245431 | 0.243902439 | 0.243902439 |
| Q56A08   | Gpkow               | G-patch domain and KOW motifs-cont        | -0.174528  | 0.422682 | -0.41291 | 8  | 0.69052  | 0.475       | 0.475       |
| Q56A10   | Znf608 Kiaa1281 Zf  | Zinc finger protein 608                   | -0.3897733 | 0.260686 | -1.49518 | 8  | 0.173228 | 0.15        | 0.15        |
| Q570Z8   | Picalm mKIAA4114    | MKIAA4114 protein                         | -0.1447516 | 0.204092 | -0.70925 | 5  | 0.509865 | 0.3         | 0           |
| Q571H0   | Urb1 Kiaa0539 Npa   | Nucleolar pre-ribosomal-associated pr     | 1.4278023  | 0.415816 | 3.43373  | 1  | 0.180412 | 0.7         | 0           |
| Q571I9   | Aldh16a1            | Aldehyde dehydrogenase family 16 me       | 0.0223265  | 0.218147 | 0.10235  | 8  | 0.921001 | 0.375       | 0.375       |
| Q571J5   | Znf354c Kiaa4218 k  | Zinc finger protein 354C (Kidney, ische   | -0.6501773 | 0.255286 | -2.54686 | 1  | 0.238189 | 0.7         | 0           |
| Q58A65-2 | Spag9 Jip4 Jsap2 Ki | C-Jun-amino-terminal kinase-interactir    | 0.4901479  | 0.281621 | 1.74045  | 8  | 0.119962 | 0.55        | 0.55        |
| Q59J78   | Ndufaf2 Ndufa12l    | NADH dehydrogenase [ubiquinone] 1         | -0.3985417 | 0.493883 | -0.80696 | 8  | 0.443019 | 0.34        | 0.34        |
| Q5BKS5   | Hook3               | Hook homolog 3 (Drosophila)               | 0.4760732  | 0.214313 | 2.2214   | 8  | 0.057058 | 0.372727273 | 0.372727273 |
| Q5BLK4   | Tut7 Kiaa1711 Zcch  | Terminal uridylyltransferase 7 (TUTase    | 1.4537567  | 1.38946  | 1.04627  | 3  | 0.372307 | 0.5         | 0           |
| Q5DTJ9   | Mypn Kiaa4170       | Myopalladin                               | 0.5546333  | 0.770546 | 0.71979  | 8  | 0.492143 | 0.1         | 0.1         |
| Q5DTK3   | Prkci mKIAA4165     | Protein kinase C iota type (EC 2.7.11.1   | 0.5178359  | 0.602528 | 0.85944  | 8  | 0.415108 | 0.485714286 | 0.485714286 |
| Q5DTM8   | Rnf20 Bre1a Kiaa41  | E3 ubiquitin-protein ligase BRE1A (BRI    | 0.0754545  | 0.177859 | 0.42424  | 8  | 0.68257  | 0.427777778 | 0.427777778 |
| Q5DTS4   | Rbm6 mKIAA4015      | MKIAA4015 protein                         | 0.2855618  | 0.280415 | 1.01835  | 8  | 0.338315 | 0.39        | 0.39        |
| Q5DTW7   | Resf1 Kiaa1551      | Retroelement silencing factor 1           | 0.2467085  | 0.248297 | 0.9936   | 8  | 0.349515 | 0.333333333 | 0.333333333 |
| Q99P69   | Nuf2 Cdca1 Nuf2r    | Kinetochore protein Nuf2 (Cell division   | 0.4943586  | 0.137418 | 3.59747  | 3  | 0.036828 | 0.65        | 0.15        |
| Q5DW34   | Ehmt1 Euhmtase1 (   | Histone-lysine N-methyltransferase EH     | 0.3438691  | 0.265248 | 1.29641  | 8  | 0.23098  | 0.373333333 | 0.373333333 |
| Q62351   | Tfrc Trfr           | Transferrin receptor protein 1 (TR) (TfF  | 0.4803607  | 0.200461 | 2.39628  | 8  | 0.043428 | 0.25        | 0.25        |
| Q5EBL1   | Hbb-bh1 Glnb3       | Globin b3 (Hemoglobin Z, beta-like em     | 0.5309823  | 0.547659 | 0.96955  | 8  | 0.360667 | 0.168       | 0.168       |
| Q5EBP8   | Hnrnpa1 Hnrpa1      | Heterogeneous nuclear ribonucleopro       | -0.1786796 | 0.426543 | -0.4189  | 8  | 0.686309 | 0.3         | 0.3         |
| Q5EG47   | Prkaa1              | 5'-AMP-activated protein kinase cataly    | -0.1565377 | 0.492856 | -0.31761 | 1  | 0.804216 | 0.7         | 0           |
| P62843   | Rps15 Rig           | Small ribosomal subunit protein uS19      | 0.4671983  | 0.188847 | 2.47395  | 8  | 0.038473 | 0.1625      | 0.1625      |
| Q5F285   | Tmem256             | Transmembrane protein 256                 | 0.1376152  | 0.098881 | 1.39172  | 5  | 0.222745 | 0.55        | 0.25        |
| Q5F2E7   | Nufip2 Kiaa1321     | FMR1-interacting protein NUFIP2 (82 k     | 0.0158635  | 0.13172  | 0.12043  | 8  | 0.90711  | 0.528571429 | 0.528571429 |
| Q5F2E8   | Taok1 Kiaa1361      | Serine/threonine-protein kinase TAO1      | 0.1186584  | 0.341722 | 0.34724  | 8  | 0.737372 | 0.575       | 0.575       |
| Q5FWI3   | Cemip2 Kiaa1412 Ti  | Cell surface hyaluronidase (EC 3.2.1.3    | 0.1091154  | 0.289341 | 0.37712  | 7  | 0.717259 | 0.511111111 | 0.411111111 |
| Q5FWK3   | Arhgap1             | Rho GTPase-activating protein 1 (Rho-     | 0.0645803  | 0.161066 | 0.40096  | 8  | 0.698948 | 0.277777778 | 0.277777778 |
| Q5HZJ0   | Drosha Etohi2 Rn3   | Ribonuclease 3 (EC 3.1.26.3) (Protein Inf | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| Q5IBH7   | Spdy1               | Speedy protein A (Protein expressed in    | 0.225126   | 0.219342 | 1.02637  | 2  | 0.412634 | 0.6         | 0           |
| Q5M8N0   | Cnrip1              | CB1 cannabinoid receptor-interacting      | 0.3421751  | 0.809619 | 0.42264  | 2  | 0.713663 | 0.6         | 0           |
| Q5NC05   | Ttf2                | Transcription termination factor 2 (EC    | 0.1537941  | 0.330377 | 0.46551  | 3  | 0.673277 | 0.5         | 0           |
| Q5NCQ5   | Dph1 Dph2l1 Ovca1   | 2-(3-amino-3-carboxypropyl)histidine      | -0.2197135 | 0.371447 | -0.59151 | 2  | 0.614134 | 0.6         | 0           |
| Q5NCR9   | Nsrp1 Ccdc55 Nsrp   | Nuclear speckle splicing regulatory pro   | 0.4920132  | 0.420635 | 1.16969  | 8  | 0.275792 | 0.5         | 0.5         |
| Q5NCU4   | Sparc               | SPARC (Osteonectin) (Secreted protein     | -0.0005459 | 0.522052 | -0.00105 | 4  | 0.999216 | 0.4         | 0           |

|          |             |                                                     |            |          |          |   |          |             |             |
|----------|-------------|-----------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q5PR69   | Cradd Cradl | Kiaa121 Capping protein-inhibiting regulator of     | 0.2840586  | 0.155945 | 1.82153  | 8 | 0.106004 | 0.452173913 | 0.452173913 |
| Q5PSV9   | Mdc1        | Kiaa0170 Mediator of DNA damage checkpoint p        | -0.2587299 | 0.172989 | -1.49564 | 8 | 0.173111 | 0.4         | 0.4         |
| Q5RIM6   | Ncor1       | Nuclear receptor corepressor 1                      | 0.0023237  | 0.405549 | 0.00573  | 8 | 0.995569 | 0.571428571 | 0.571428571 |
| Q9D1Q6   | Erp44       | Kiaa0573 Txn Endoplasmic reticulum resident protei  | 0.4619977  | 0.181279 | 2.54855  | 8 | 0.034252 | 0.347368421 | 0.347368421 |
| Q5RJH6   | Smg7        | Est1c Kiaa025 Nonsense-mediated mRNA decay facto    | -0.1958547 | 0.224162 | -0.87372 | 7 | 0.411241 | 0.1         | 0           |
| Q5RJI5   | Brsk1       | Gm1100 Sadl Serine/threonine-protein kinase BRSK1   | 0.0855523  | 0.266081 | 0.32153  | 2 | 0.778304 | 0.6         | 0           |
| Q5RKR3   | Islr2       | Kiaa1465 Linx Immunoglobulin superfamily containin  | 0.4279439  | 0.200411 | 2.13533  | 8 | 0.065249 | 0.34375     | 0.34375     |
| Q5RL20   | Mrpl43      | Large ribosomal subunit protein mL43                | 0.0767044  | 0.299663 | 0.25597  | 7 | 0.805334 | 0.5         | 0.4         |
| Q5SF07   | Igf2bp2     | Imp2 Vickz2 Insulin-like growth factor 2 mRNA-bind  | 0.0506641  | 0.116342 | 0.43548  | 8 | 0.674727 | 0.272       | 0.272       |
| Q5SFM8   | Rbm27       | Kiaa1311 RNA-binding protein 27 (Peri-implanta      | -0.143266  | 0.169564 | -0.84491 | 8 | 0.42271  | 0.433333333 | 0.433333333 |
| Q5SNZ0   | Ccdc88a     | Grdn Kiaa1 Girdin (Akt phosphorylation enhancer)    | 0.7270354  | 0.558476 | 1.30182  | 8 | 0.22921  | 0.496       | 0.496       |
| Q5SPL2   | Phf12       | Kiaa1523 PHD finger protein 12 (PHD factor 1) (     | 0.0746618  | 1.101147 | 0.0678   | 4 | 0.949196 | 0.55        | 0.15        |
| Q5SQX6   | Cyfp2       | Kiaa1168 Pir Cytoplasmic FMR1-interacting protein   | -0.445706  | 0.207956 | -2.14327 | 8 | 0.064448 | 0.46        | 0.46        |
| Q5SRX1   | Tom12       | TOM1-like protein 2 (Target of Myb-like             | 1.2146727  | 0.581828 | 2.08768  | 4 | 0.105106 | 0.55        | 0.15        |
| Q5SS00   | Zdbf2       | DBF4-type zinc finger-containing prote              | 0.191778   | 0.557919 | 0.34374  | 8 | 0.739903 | 0.333333333 | 0.333333333 |
| Q5SS80   | Dhrs13      | Sdr7c5 Dehydrogenase/reductase SDR family I         | -0.2778767 | 0.406212 | -0.68407 | 8 | 0.513256 | 0.466666667 | 0.466666667 |
| Q5SSI6   | Utp18       | Wdr50 U3 small nucleolar RNA-associated pro         | -0.0826091 | 0.276416 | -0.29886 | 8 | 0.772665 | 0.422222222 | 0.422222222 |
| Q5SSL4   | Abr         | Active breakpoint cluster region-relate             | 0.1109014  | 0.334508 | 0.33154  | 4 | 0.756882 | 0.65        | 0.25        |
| Q5SSW2   | Psme4       | Kiaa0077 Proteasome activator complex subunit       | -0.2108899 | 0.311094 | -0.6779  | 7 | 0.519608 | 0.54        | 0.44        |
| Q5SSZ5-2 | Tns3        | Tens1 Tensin-3 (EC 3.1.3.-) (Tensin-like SH2        | -1.1375704 | 2.601512 | -0.43727 | 3 | 0.691478 | 0.5         | 0           |
| Q5STS9   | Bcl11a      | B cell CLL/lymphoma 11A (zinc finger p              | -0.1871796 | 0.231646 | -0.80804 | 8 | 0.442429 | 0.378947368 | 0.378947368 |
| Q5SU73   | Coil CLN80  | Coilin (p80-coilin)                                 | 0.2688591  | 0.205547 | 1.30802  | 8 | 0.227198 | 0.5         | 0.5         |
| Q5SUF2   | Luc7l3      | Crop Luc7-like protein 3 (Cisplatin resistanc       | 0.100357   | 0.19743  | 0.50832  | 8 | 0.624948 | 0.247058824 | 0.247058824 |
| Q5SUH6   | Clint1      | Clathrin interactor 1                               | 0.0535344  | 0.139568 | 0.38357  | 8 | 0.711289 | 0.42        | 0.42        |
| Q5SUR0   | Pfas        | Kiaa0361 Phosphoribosylformylglycinamide sy         | 0.0239878  | 0.044102 | 0.54392  | 8 | 0.60132  | 0.252459016 | 0.252459016 |
| Q5SV85-2 | Synrg       | Ap1gbp1 Syn Synergic gamma (AP1 subunit gamma-      | 0.2854964  | 0.206545 | 1.38224  | 8 | 0.204259 | 0.427272727 | 0.427272727 |
| Q5SVQ0   | Kat7        | Hbo1 Myst2 Histone acetyltransferase KAT7 (EC 2.3   | 0.1022532  | 0.30663  | 0.33347  | 7 | 0.748543 | 0.5         | 0.4         |
| Q8R1Q8   | Dync1li1    | Dncli1 Dnc Cytoplasmic dynein 1 light intermediat   | 0.4577565  | 0.142943 | 3.20238  | 8 | 0.012567 | 0.314705882 | 0.314705882 |
| Q5SW75   | Ssh2        | Kiaa1725 Ssh1 Protein phosphatase Slingshot homolog | 0.2723315  | 0.446753 | 0.60958  | 8 | 0.559051 | 0.55        | 0.55        |
| Q5SW88   | Rab1a       | Rab1 Ras-related protein Rab-1A                     | -0.2531164 | 0.190104 | -1.33146 | 8 | 0.219726 | 0.25        | 0.25        |
| Q5SWD9   | Tsr1        | Kiaa1401 Pre-rRNA-processing protein TSR1 hor       | 0.2854978  | 0.360734 | 0.79144  | 8 | 0.451515 | 0.375       | 0.375       |
| Q5SWP3   | Nacad       | Kiaa0363 NAC-alpha domain-containing protein        | 0.53489    | 0.239593 | 2.23249  | 8 | 0.056078 | 0.381818182 | 0.381818182 |
| Q5SWU9   | Acaca       | Acac Gm738 Acetyl-CoA carboxylase 1 (ACC1) (EC      | -0.1946429 | 0.184769 | -1.05344 | 8 | 0.322915 | 0.3975      | 0.3975      |
| Q5SXC4   | Vezf1       | Vascular endothelial zinc finger 1                  | -0.2199917 | 0.342426 | -0.64245 | 8 | 0.538553 | 0.342857143 | 0.342857143 |
| Q5U3K5   | Rabl6       | Parf Rab-like protein 6 (GTP-binding protei         | 0.9866379  | 0.846453 | 1.16561  | 7 | 0.281947 | 0.5         | 0.4         |
| Q5U452   | Trp53rka    | 2810408 Non-specific serine/threonine protein I     | 0.1254044  | 0.226468 | 0.55374  | 8 | 0.594891 | 0.3         | 0.3         |
| Q5U458   | Dnajc11     | DnaJ homolog subfamily C member 11                  | -0.065569  | 0.133902 | -0.48968 | 8 | 0.637504 | 0.4125      | 0.4125      |
| Q5U4C1   | Gprasp1     | Kiaa0443 G-protein coupled receptor-associate       | 0.1707294  | 0.309424 | 0.55176  | 8 | 0.596182 | 0.333333333 | 0.333333333 |

|          |                    |                                          |            |          |          |    |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q5U4C3   | Scaf1 Sfrs19       | Splicing factor, arginine/serine-rich 19 | -0.0749994 | 0.352373 | -0.21284 | 8  | 0.836775 | 0.4         | 0.4         |
| Q5U4D9   | Thoc6 Wdr58        | THO complex subunit 6 homolog (WD        | 0.0047776  | 0.26729  | 0.01787  | 8  | 0.986177 | 0.328571429 | 0.328571429 |
| Q5U5M8   | Bloc1s3 Blos3 Rp   | Biogenesis of lysosome-related organe    | -0.2563871 | 0.084705 | -3.02681 | 3  | 0.056453 | 0.5         | 0           |
| Q8BHE3   | Atcay              | Caytaxin                                 | 0.4565264  | 0.166597 | 2.74031  | 5  | 0.040777 | 0.566666667 | 0.266666667 |
| Q5UAK0   | Mier1 Kiaa1610     | Mesoderm induction early response pr     | -0.3251048 | 0.034138 | -9.52325 | 1  | 0.066605 | 0.7         | 0           |
| Q5XFZ0   |                    | UPF0711 protein C18orf21 homolog         | -0.1125798 | 0.254322 | -0.44267 | 3  | 0.687979 | 0.5         | 0           |
| Q5XG69   | Fam169a Kiaa0888   | Soluble lamin-associated protein of 75   | 0.1828177  | 0.159708 | 1.1447   | 6  | 0.295934 | 0.633333333 | 0.433333333 |
| Q5XG71   | Utp20 Drim         | Small subunit processome component       | 0.2125471  | 0.518031 | 0.4103   | 1  | 0.752131 | 0.7         | 0           |
| Q5XG73   | Acbd5              | Acyl-CoA-binding domain-containing p     | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q5XJE5   | Leo1 Gm185         | RNA polymerase-associated protein LE     | 0.1839185  | 0.404671 | 0.45449  | 8  | 0.661555 | 0.285714286 | 0.285714286 |
| Q5XJY5   | Arcn1 Copd         | Coatomer subunit delta (Archain) (Del    | 0.1221047  | 0.279838 | 0.43634  | 8  | 0.674125 | 0.307692308 | 0.307692308 |
| Q5XK33   | Sdhc               | Succinate dehydrogenase cytochrome       | -0.07597   | 0.432698 | -0.17557 | 8  | 0.864992 | 0.36        | 0.36        |
| Q60519   | Sema5b Kiaa1445 S  | Semaphorin-5B (Semaphorin-G) (Sem        | -0.140569  | 0.38393  | -0.36613 | 4  | 0.732809 | 0.7         | 0.3         |
| Q60520   | Sin3a Kiaa4126     | Paired amphipathic helix protein Sin3a   | -0.2731651 | 0.243324 | -1.12264 | 8  | 0.294151 | 0.433333333 | 0.433333333 |
| Q60575   | Kif1b              | Kinesin-like protein KIF1B               | -0.3394781 | 1.952067 | -0.17391 | 2  | 0.877949 | 0.6         | 0           |
| Q60596   | Xrcc1 Xrcc-1       | DNA repair protein XRCC1 (X-ray repai    | 0.0252392  | 0.162263 | 0.15554  | 8  | 0.880245 | 0.34        | 0.34        |
| Q60597   | Ogdh Kiaa4192      | 2-oxoglutarate dehydrogenase comple      | 0.0603524  | 0.133254 | 0.45291  | 8  | 0.662643 | 0.309375    | 0.309375    |
| Q60598   | Cttn Ems1          | Src substrate cortactin                  | 0.401891   | 0.27072  | 1.48453  | 8  | 0.175966 | 0.369230769 | 0.369230769 |
| Q60605-2 | Myf6 Myln          | Myosin light polypeptide 6 (17 kDa my    | 0.0414007  | 0.282783 | 0.1464   | 8  | 0.887224 | 0.081818182 | 0.081818182 |
| Q60631   | Grb2               | Growth factor receptor-bound protein     | 0.3433837  | 0.249865 | 1.37427  | 8  | 0.206623 | 0.233333333 | 0.233333333 |
| Q60668   | Hnrnpd Auf1 Hnrpc  | Heterogeneous nuclear ribonucleopro      | 0.0425066  | 0.291383 | 0.14588  | 8  | 0.887626 | 0.23030303  | 0.23030303  |
| Q60676   | Ppp5c              | Serine/threonine-protein phosphatase     | -0.0695467 | 0.148237 | -0.46916 | 8  | 0.651477 | 0.283333333 | 0.283333333 |
| Q60692   | Psmb6 Lmp19        | Proteasome subunit beta type-6 (EC 3     | 0.1810781  | 0.161605 | 1.1205   | 8  | 0.295009 | 0.276470588 | 0.276470588 |
| Q60710   | Samhd1 Mg21        | Deoxynucleoside triphosphate triphos     | -0.30042   | 0.287234 | -1.04591 | 6  | 0.335898 | 0.4         | 0.2         |
| Q60715   | P4ha1              | Prolyl 4-hydroxylase subunit alpha-1 (   | 0.1988327  | 0.210966 | 0.94249  | 8  | 0.37353  | 0.353846154 | 0.353846154 |
| Q60722   | Tcf4 Itf2 Sef2     | Transcription factor 4 (TCF-4) (Class A  | -0.0305921 | 0.374094 | -0.08178 | 3  | 0.939975 | 0.5         | 0           |
| Q60737   | Csnk2a1 Ckiia      | Casein kinase II subunit alpha (CK II al | -0.230452  | 0.183508 | -1.25582 | 8  | 0.244617 | 0.265384615 | 0.265384615 |
| Q60739   | Bag1               | BAG family molecular chaperone regul     | 0.5313342  | 0.283089 | 1.87691  | 8  | 0.097367 | 0.416666667 | 0.416666667 |
| Q60749   | Khdrbs1            | KH domain-containing, RNA-binding, s     | 0.0990761  | 0.225569 | 0.43923  | 8  | 0.672118 | 0.213333333 | 0.213333333 |
| Q60751   | Igf1r              | Insulin-like growth factor 1 receptor (E | 0.5757216  | 0.549164 | 1.04836  | 8  | 0.32511  | 0.61        | 0.61        |
| Q60759   | Gcdh               | Glutaryl-CoA dehydrogenase, mitocho      | 0.24337    | 0.738548 | 0.32953  | 7  | 0.7514   | 0.45        | 0.35        |
| Q60760   | Grb10 Meg1         | Growth factor receptor-bound protein     | 0.0608551  | 0.212651 | 0.28617  | 8  | 0.782016 | 0.345       | 0.345       |
| Q60809   | Cnot7 Caf1         | CCR4-NOT transcription complex sub       | -0.034314  | 0.183777 | -0.18672 | 8  | 0.856532 | 0.3         | 0.3         |
| Q60823   | Akt2               | RAC-beta serine/threonine-protein kin    | -0.074042  | 0.286034 | -0.25886 | 8  | 0.802281 | 0.475       | 0.475       |
| Q60838   | Dvl2               | Segment polarity protein dishevelled h   | -0.2267744 | 0.204699 | -1.10784 | 8  | 0.300123 | 0.4         | 0.4         |
| Q60841   | Reln Rl            | Reelin (EC 3.4.21.-) (Reeler protein)    | -0.458282  | 0.467286 | -0.98073 | 4  | 0.382254 | 0.7         | 0.3         |
| Q60848   | Hells Lsh Pasg     | Lymphocyte-specific helicase (EC 3.6.4   | 0.0460501  | 0.37087  | 0.12417  | 8  | 0.904246 | 0.430769231 | 0.430769231 |
| Q60854   | Serpinb6 Serpinb6a | Serpin B6 (Placental thrombin inhibito   | -1.2861046 | 0.573343 | -2.24317 | 2  | 0.154081 | 0.6         | 0           |

|            |                     |                                          |            |          |          |   |          |             |             |
|------------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q60862     | Orc2 Orc2l          | Origin recognition complex subunit 2     | 0.0539169  | 0.525485 | 0.1026   | 7 | 0.921155 | 0.3         | 0.2         |
| Q60864     | Stip1               | Stress-induced-phosphoprotein 1 (ST      | 0.0988449  | 0.311226 | 0.3176   | 8 | 0.758921 | 0.238095238 | 0.238095238 |
| Q60865     | Caprin1 Gpiap Gpia  | Caprin-1 (Cytoplasmic activation- and    | 0.1458277  | 0.147712 | 0.98724  | 8 | 0.352439 | 0.229032258 | 0.229032258 |
| Q60866     | Pter                | Phosphotriesterase-related protein (E    | -1.4767177 | 0.122971 | -12.0086 | 1 | 0.052891 | 0.7         | 0           |
| Q60875     | Arhgef2 Kiaa0651 Li | Rho guanine nucleotide exchange facto    | -0.2169847 | 0.134636 | -1.61164 | 8 | 0.145707 | 0.417391304 | 0.417391304 |
| Q60876     | Eif4ebp1            | Eukaryotic translation initiation factor | -0.6358782 | 0.768448 | -0.82748 | 5 | 0.445646 | 0.3         | 0           |
| Q60899     | Elavl2 Hub          | ELAV-like protein 2 (ELAV-like neurona   | -0.0207868 | 0.14442  | -0.14393 | 8 | 0.889113 | 0.23        | 0.23        |
| Q60900     | Elavl3 Huc          | ELAV-like protein 3 (Hu-antigen C) (Hu   | 0.204429   | 0.273537 | 0.74735  | 8 | 0.47624  | 0.26875     | 0.26875     |
| Q60902-4   | Eps15l1 Eps15-rs E  | Epidermal growth factor receptor subs    | 0.3702175  | 0.279017 | 1.32687  | 3 | 0.276506 | 0.5         | 0           |
| Q60902     | Eps15l1 Eps15-rs E  | Epidermal growth factor receptor subs    | 0.2989727  | 0.509671 | 0.5866   | 1 | 0.662268 | 0.7         | 0           |
| A0A0R4IZX5 | Ncan                | Neurocan                                 | 0.4562028  | 0.135162 | 3.37523  | 8 | 0.00971  | 0.355       | 0.355       |
| Q60931     | Vdac3               | Voltage-dependent anion-selective cha    | -0.2461549 | 0.198777 | -1.23835 | 8 | 0.250691 | 0.391666667 | 0.391666667 |
| Q60932-2   | Vdac1 Vdac5         | Voltage-dependent anion-selective cha    | -0.018012  | 0.232784 | -0.07738 | 8 | 0.940224 | 0           | 0           |
| Q60950     | Ybx1 Nsep1          | Y-box-binding protein 1 (Y-box transcr   | -0.8563556 | 0.466375 | -1.8362  | 8 | 0.103648 | 0.45        | 0.45        |
| Q60953     | Pml                 | Protein PML                              | -0.3989694 | 0.148952 | -2.6785  | 1 | 0.227475 | 0.7         | 0           |
| Q60960     | Kpna1 Rch2          | Importin subunit alpha-5 (Importin alp   | -0.0704676 | 0.358842 | -0.19637 | 8 | 0.849214 | 0.37        | 0.37        |
| Q60967     | Papss1 Asapk Atpsk  | Bifunctional 3'-phosphoadenosine 5'-     | 0.0512468  | 0.213932 | 0.23955  | 8 | 0.816705 | 0.395833333 | 0.395833333 |
| Q60972     | Rbbp4 Rbap48        | Histone-binding protein RBBP4 (Chroi     | 0.1481319  | 0.220231 | 0.67262  | 8 | 0.520139 | 0.2         | 0.2         |
| Q60973     | Rbbp7 Rbap46        | Histone-binding protein RBBP7 (Histo     | 0.7227715  | 0.577138 | 1.25234  | 8 | 0.245817 | 0.225       | 0.225       |
| Q60987     | Foxg1 Fkhl1 Foxg1b  | Forkhead box protein G1 (FoxG1) (Bra     | -0.130765  | 0.5411   | -0.24167 | 8 | 0.815119 | 0.385714286 | 0.385714286 |
| Q60996     | Ppp2r5c             | Serine/threonine-protein phosphatase     | -0.7761226 | 0.508974 | -1.52488 | 7 | 0.171117 | 0.5         | 0.4         |
| Q60123     | Sox2                | SRY (sex determining region Y)-box 2 (   | 0.3582451  | 0.614568 | 0.58292  | 8 | 0.576005 | 0.4875      | 0.4875      |
| Q61024     | Asns                | Asparagine synthetase [glutamine-hydr    | 0.3028314  | 0.286851 | 1.05571  | 8 | 0.321936 | 0.4         | 0.4         |
| Q61026     | Ncoa2 Grip1 Src2 Ti | Nuclear receptor coactivator 2 (NCoA-    | -0.2672517 | 0.363335 | -0.73555 | 8 | 0.483008 | 0.566666667 | 0.566666667 |
| Q61033     | Tmpo Lap2           | Lamina-associated polypeptide 2, isofc   | 0.1440233  | 0.119159 | 1.20866  | 8 | 0.261301 | 0.344444444 | 0.344444444 |
| Q61035     | Hars1 Hars          | Histidine--tRNA ligase, cytoplasmic (EC  | 0.260012   | 0.146834 | 1.77078  | 8 | 0.114549 | 0.240909091 | 0.240909091 |
| Q61036-2   | Pak3 Pak-3 Pakb Stk | Serine/threonine-protein kinase PAK 3    | 0.3873667  | 0.179803 | 2.15439  | 8 | 0.06334  | 0.4         | 0.4         |
| Q61037     | Tsc2                | Tuberin (Tuberous sclerosis 2 protein l  | -0.4353949 | 0.255873 | -1.7016  | 7 | 0.132619 | 0.5         | 0.4         |
| Q61043     | Nin Kiaa1565        | Ninein                                   | 0.9481761  | 0.62795  | 1.50995  | 1 | 0.372393 | 0.7         | 0           |
| Q61048     | Wbp4 Fbp21 Fnbp2    | WW domain-binding protein 4 (WBP-4       | 0.0499927  | 0.236404 | 0.21147  | 8 | 0.837807 | 0.25        | 0.25        |
| Q61062     | Dvl3                | Segment polarity protein dishevelled h   | -0.0176431 | 0.397977 | -0.04433 | 8 | 0.965726 | 0.233333333 | 0.233333333 |
| Q61074     | Ppm1g Fin13 Ppm1    | Protein phosphatase 1G (EC 3.1.3.16)     | -0.0890273 | 0.099718 | -0.89279 | 8 | 0.398028 | 0.3         | 0.3         |
| Q61081     | Cdc37               | Hsp90 co-chaperone Cdc37 (Hsp90 c        | 0.4528721  | 0.395153 | 1.14607  | 8 | 0.284889 | 0.305263158 | 0.305263158 |
| Q61097     | Ksr1 Ksr            | Kinase suppressor of Ras 1 (mKSR1) (l    | 3.0517391  | 0.880541 | 3.46576  | 1 | 0.178831 | 0.7         | 0           |
| Q61102     | Abcb7 Abc7          | Iron-sulfur clusters transporter ABCB7   | 0.1945283  | 0.274392 | 0.70894  | 8 | 0.498496 | 0.066666667 | 0.066666667 |
| Q61103     | Dpf2 Baf45d Req UI  | Zinc finger protein ubi-d4 (Apoptosis r  | 0.1310202  | 0.118995 | 1.10105  | 8 | 0.302896 | 0.283333333 | 0.283333333 |
| Q61112     | Sdf4 Cab45          | 45 kDa calcium-binding protein (Cab4     | 0.4535104  | 0.304782 | 1.48798  | 6 | 0.187321 | 0.6         | 0.4         |
| Q61136     | Prp4k Cbp143 Prp4   | Serine/threonine-protein kinase PRP4     | 0.3251829  | 0.270665 | 1.20142  | 8 | 0.263945 | 0.392857143 | 0.392857143 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q61137   | Astn1 Astn Kiaa028 | Astrotactin-1 (Neuronal migration pro    | -0.1223931 | 0.60186  | -0.20336 | 6 | 0.845577 | 0.566666667 | 0.366666667 |
| Q61142   | Spin1 Spin         | Spindlin-1 (30000 Mr metaphase com       | 0.5190397  | 0.305195 | 1.70068  | 8 | 0.127421 | 0.393333333 | 0.393333333 |
| Q61151   | Ppp2r5e Kiaa4006   | Serine/threonine-protein phosphatase     | 0.224021   | 0.430637 | 0.52021  | 8 | 0.617004 | 0.288888889 | 0.288888889 |
| Q61160   | Fadd Mort1         | FAS-associated death domain protein (    | 0.823733   | 0.343904 | 2.39524  | 3 | 0.096286 | 0.65        | 0.15        |
| Q61164   | Ctcf               | Transcriptional repressor CTCF (11-zin   | 0.2882718  | 0.239462 | 1.20383  | 8 | 0.263064 | 0.340740741 | 0.340740741 |
| Q61166   | Mapre1             | Microtubule-associated protein RP/EB     | 0.1472882  | 0.107531 | 1.36973  | 8 | 0.207982 | 0.162962963 | 0.162962963 |
| Q61171   | Prdx2 Tdpx1 Tpx    | Peroxiredoxin-2 (EC 1.11.1.24) (Thiol-   | 0.1054646  | 0.186011 | 0.56698  | 8 | 0.586279 | 0.190322581 | 0.190322581 |
| Q61183   | Papola Pap Plap    | Poly(A) polymerase alpha (PAP-alpha)     | -0.1576219 | 0.238303 | -0.66144 | 8 | 0.526921 | 0.426315789 | 0.426315789 |
| Q61187   | Tsg101             | Tumor susceptibility gene 101 protein    | -0.0315302 | 0.240685 | -0.131   | 8 | 0.899008 | 0.258333333 | 0.258333333 |
| Q61188   | Ezh2 Enx1h         | Histone-lysine N-methyltransferase EZ    | -0.0693995 | 0.154002 | -0.45064 | 8 | 0.664211 | 0.353846154 | 0.353846154 |
| Q61191   | Hcfc1              | Host cell factor 1 (HCF) (HCF-1) (C1 f   | 0.0345363  | 0.082146 | 0.42042  | 8 | 0.685241 | 0.23220339  | 0.23220339  |
| Q61205   | Pafah1b3 Pafahg    | Platelet-activating factor acetylhydrola | 0.2928599  | 0.19847  | 1.47558  | 8 | 0.178294 | 0.154545455 | 0.154545455 |
| Q61206   | Pafah1b2 Pafahb    | Platelet-activating factor acetylhydrola | 0.2348666  | 0.258297 | 0.90929  | 8 | 0.389769 | 0.247826087 | 0.247826087 |
| Q61210   | Arhgef1 Lbcl2 Lsc  | Rho guanine nucleotide exchange facto    | 0.7297017  | 0.325021 | 2.24509  | 8 | 0.054987 | 0.481818182 | 0.481818182 |
| Q61211   | Eif2d Lgtn         | Eukaryotic translation initiation factor | 0.2227894  | 0.25079  | 0.88835  | 6 | 0.408551 | 0.6         | 0.4         |
| Q61216   | Mre11 Mre11a       | Double-strand break repair protein MR    | 0.4408223  | 0.272367 | 1.61849  | 8 | 0.144219 | 0.5         | 0.5         |
| Q61233   | Lcp1 Pls2          | Plastin-2 (65 kDa macrophage protein)    | -0.1747412 | 0.346103 | -0.50488 | 7 | 0.629145 | 0.6         | 0.5         |
| Q61239   | Fnta               | Protein farnesyltransferase/geranylgera  | 0.0852974  | 0.356095 | 0.23954  | 8 | 0.816714 | 0.366666667 | 0.366666667 |
| Q61245   | Col11a1            | Collagen alpha-1(XI) chain               | 0.9532545  | 0.61304  | 1.55496  | 1 | 0.363835 | 0.7         | 0           |
| Q61247   | Serpinf2 Pli       | Alpha-2-antiplasmin (Alpha-2-AP) (Alp    | 1.0981874  | 0.215952 | 5.08533  | 1 | 0.12361  | 0.7         | 0           |
| Q61249   | Igbbp1 Pc52        | Immunoglobulin-binding protein 1 (Alq    | -0.4655746 | 0.277975 | -1.67488 | 8 | 0.132489 | 0.418181818 | 0.418181818 |
| Q61263   | Soat1 Acact        | Sterol O-acyltransferase 1 (EC 2.3.1.2)  | 0.5384581  | 0.26969  | 1.99658  | 3 | 0.139789 | 0.5         | 0           |
| Q61286   | Tcf12 Alf1 Meb     | Transcription factor 12 (TCF-12) (Clas   | 0.0311694  | 0.168141 | 0.18538  | 8 | 0.857547 | 0.475       | 0.475       |
| Q61292   | Lamb2 Lams         | Laminin subunit beta-2 (Laminin-11 su    | -0.1697253 | 0.422702 | -0.40152 | 8 | 0.698546 | 0.425       | 0.425       |
| Q61301   | Ctnna2 Catna2      | Catenin alpha-2 (Alpha N-catenin)        | 0.393883   | 0.282758 | 1.393    | 8 | 0.201107 | 0.425       | 0.425       |
| Q61315   | Apc                | Adenomatous polyposis coli protein (F    | 2.2610514  | 0.549555 | 4.11433  | 2 | 0.054307 | 0.6         | 0           |
| Q61324   | Arnt2 Kiaa0307     | Aryl hydrocarbon receptor nuclear tran   | 0.1798141  | 0.282505 | 0.6365   | 8 | 0.54223  | 0.457142857 | 0.457142857 |
| Q61330   | Cntn2 Tax          | Contactin-2 (Axonal glycoprotein TAG-    | -0.6732021 | 0.363878 | -1.85008 | 8 | 0.101464 | 0.4         | 0.4         |
| Q61335   | Bcap31 Bap31       | B-cell receptor-associated protein 31 (  | 0.5658297  | 0.438705 | 1.28977  | 7 | 0.238104 | 0.475       | 0.375       |
| Q61337   | Bad Bbc6           | Bcl2-associated agonist of cell death (F | 0.4446258  | 0.371494 | 1.19686  | 7 | 0.270319 | 0.1         | 0           |
| Q61425   | Hadh Hadhsc Msch   | Hydroxyacyl-coenzyme A dehydrogena       | 0.512191   | 0.274723 | 1.86439  | 8 | 0.099259 | 0.292307692 | 0.292307692 |
| Q61458   | Ccnh               | Cyclin-H                                 | -0.0762779 | 0.284641 | -0.26798 | 6 | 0.79769  | 0.2         | 0           |
| Q61464-4 | Znf638 Np220 Zfml  | Zinc finger protein 638 (Nuclear protei  | 0.0101092  | 0.177326 | 0.05701  | 8 | 0.955936 | 0.355555556 | 0.355555556 |
| Q61466   | Smarcd1 Baf60a D1  | SWI/SNF-related matrix-associated acti   | 0.0722842  | 0.095115 | 0.75996  | 8 | 0.469078 | 0.295652174 | 0.295652174 |
| Q61474   | Msi1 Msi1h         | RNA-binding protein Musashi homolog      | -0.0600951 | 0.180635 | -0.33269 | 8 | 0.74792  | 0.166666667 | 0.166666667 |
| Q61482   | Cdebpp             | CDE1-binding protein CDEBP               | -0.3698687 | 0.629376 | -0.58768 | 3 | 0.598055 | 0.5         | 0           |
| Q61490   | Alcam              | CD166 antigen (Activated leukocyte ce    | -0.1979788 | 0.365322 | -0.54193 | 8 | 0.60263  | 0.481818182 | 0.481818182 |
| Q61543   | Glg1 Esl1 Mg160 Se | Golgi apparatus protein 1 (E-selectin li | -0.0232737 | 0.120343 | -0.19339 | 8 | 0.85147  | 0.319148936 | 0.319148936 |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q61545   | Ewsr1 Ews Ewsh      | RNA-binding protein EWS                  | -0.2058055 | 0.316935 | -0.64936 | 7 | 0.536821 | 0.45        | 0.35        |
| Q61548   | Snap91              | Clathrin coat assembly protein AP180     | 1.4615752  | 0.65598  | 2.22808  | 8 | 0.056466 | 0.442857143 | 0.442857143 |
| Q61550   | Rad21 Hr21 Scc1     | Double-strand-break repair protein rac   | -0.1118959 | 0.176354 | -0.6345  | 8 | 0.543472 | 0.420833333 | 0.420833333 |
| Q61553   | Fscn1 Fan1 Snl      | Fascin (Singed-like protein)             | 0.051811   | 0.129447 | 0.40025  | 8 | 0.699448 | 0.17        | 0.17        |
| Q61555   | Fbn2 Fbn-2          | Fibrillin-2 [Cleaved into: Placensin]    | 0.4718021  | 1.11906  | 0.42161  | 7 | 0.685958 | 0.45        | 0.35        |
| Q61578   | Fdxr                | NADPH:adrenodoxin oxidoreductase, i      | 0.0839273  | 0.273202 | 0.3072   | 5 | 0.771075 | 0.55        | 0.25        |
| Q61584   | Fxr1 Fxr1h          | RNA-binding protein FXR1 (FXR1P) (m      | -0.0577392 | 0.221519 | -0.26065 | 8 | 0.800945 | 0.435714286 | 0.435714286 |
| Q61598   | Gdi2 Gdi3           | Rab GDP dissociation inhibitor beta (R   | 0.0104995  | 0.114581 | 0.09163  | 8 | 0.929242 | 0.201754386 | 0.201754386 |
| Q61599   | Arhgdib Gdid4       | Rho GDP-dissociation inhibitor 2 (Rhc    | -0.1654799 | 0.223715 | -0.73969 | 2 | 0.536528 | 0.6         | 0           |
| Q61602   | Gli3                | Transcriptional activator GLI3 (GLI3 fo  | -0.1838065 | 0.362239 | -0.50742 | 7 | 0.627454 | 0.5         | 0.4         |
| Q61624   | Znf148 Zbp89 Zfp1   | Zinc finger protein 148 (Beta enolase r  | -0.5242061 | 0.30338  | -1.72789 | 8 | 0.122274 | 0.5         | 0.5         |
| Q61655   | Ddx19a Ddx19 Eif4   | ATP-dependent RNA helicase DDX19A        | -0.1808693 | 0.219132 | -0.82539 | 8 | 0.433071 | 0.328571429 | 0.328571429 |
| Q61686   | Cbx5 Hp1a           | Chromobox protein homolog 5 (Heter       | 0.0913067  | 0.104428 | 0.87435  | 8 | 0.407409 | 0.20952381  | 0.20952381  |
| Q61687   | Atrx Hp1bp2 Xnp     | Transcriptional regulator ATRX (EC 3.6   | 0.0902736  | 0.207841 | 0.43434  | 8 | 0.675519 | 0.348       | 0.348       |
| Q61699   | Hsph1 Hsp105 Hsp    | Heat shock protein 105 kDa (42 degre     | 0.0881666  | 0.110224 | 0.79988  | 8 | 0.446877 | 0.221333333 | 0.221333333 |
| Q61701   | Elavl4 Hud          | ELAV-like protein 4 (Hu-antigen D) (Hu   | 0.0883159  | 0.198988 | 0.44383  | 8 | 0.668928 | 0.28        | 0.28        |
| Q61703   | Itih2               | Inter-alpha-trypsin inhibitor heavy cha  | 0.3956878  | 0.344009 | 1.15023  | 6 | 0.293822 | 0.5         | 0.3         |
| Q61733   | Mrps31 Imogn38      | Small ribosomal subunit protein mS31     | -0.0533409 | 0.402204 | -0.13262 | 8 | 0.897768 | 0.45        | 0.45        |
| Q61739-2 | Itga6               | Integrin alpha-6 (CD49 antigen-like fan  | 0.0123308  | 0.114373 | 0.10781  | 8 | 0.916799 | 0.347058824 | 0.347058824 |
| Q61749   | Eif2b4 Eif2b Eif2bd | Translation initiation factor eIF2B subu | -0.1557121 | 0.169043 | -0.92114 | 8 | 0.383914 | 0.442857143 | 0.442857143 |
| Q61753   | Phgdh               | D-3-phosphoglycerate dehydrogenase       | -0.0016511 | 0.068748 | -0.02402 | 8 | 0.981427 | 0.273170732 | 0.273170732 |
| Q61768   | Kif5b Khcs Kns1     | Kinesin-1 heavy chain (Conventional k    | 0.223669   | 0.209533 | 1.06747  | 8 | 0.316912 | 0.328       | 0.328       |
| Q61771   | Kif3b               | Kinesin-like protein KIF3B (Microtubule  | -0.4066524 | 0.311345 | -1.30612 | 3 | 0.282634 | 0.65        | 0.15        |
| Q61792   | Lasp1 Mln50         | LIM and SH3 domain protein 1 (LASP-1     | 0.7922769  | 0.679323 | 1.16627  | 8 | 0.277093 | 0.407692308 | 0.407692308 |
| Q61818   | Rai1 Kiaa1820       | Retinoic acid-induced protein 1          | 0.0751898  | 0.42427  | 0.17722  | 6 | 0.865165 | 0.475       | 0.275       |
| Q61823   | Pdcd4 Ma3 Tis       | Programmed cell death protein 4 (Prot    | -0.0831736 | 0.258549 | -0.32169 | 8 | 0.755929 | 0.345       | 0.345       |
| Q61831   | Mapk10 Jnk3 Prkm1   | Mitogen-activated protein kinase 10 (M   | 0.1859303  | 0.130872 | 1.42071  | 1 | 0.390453 | 0.7         | 0           |
| Q61846   | Melk Kiaa0175 Pk38  | Maternal embryonic leucine zipper kina   | -0.4821604 | 0.362905 | -1.32861 | 7 | 0.22565  | 0.3         | 0.2         |
| Q61879   | Myh10               | Myosin-10 (Cellular myosin heavy chai    | -0.0388846 | 0.164265 | -0.23672 | 8 | 0.818824 | 0.264233577 | 0.264233577 |
| Q61881   | Mcm7 Cdc47 Mcmd     | DNA replication licensing factor MCM7    | -0.1167079 | 0.092042 | -1.26799 | 8 | 0.240457 | 0.24        | 0.24        |
| Q61884   | Mns1                | Meiosis-specific nuclear structural pro  | -0.3985846 | 0.403817 | -0.98704 | 3 | 0.396395 | 0.5         | 0           |
| Q61937   | Npm1                | Nucleophosmin (NPM) (Nucleolar pho       | 0.2357971  | 0.181652 | 1.29807  | 8 | 0.230435 | 0.2         | 0.2         |
| Q61941   | Nnt                 | NAD(P) transhydrogenase, mitochond       | -0.0506902 | 0.236554 | -0.21429 | 8 | 0.835685 | 0.28125     | 0.28125     |
| Q62018   | Ctr9 Kiaa0155 Sh2t  | RNA polymerase-associated protein C1     | -0.0020157 | 0.223593 | -0.00901 | 8 | 0.993028 | 0.56875     | 0.56875     |
| Q62036   | Cep131 Azi1 Azi Azi | Centrosomal protein of 131 kDa (5-az     | 0.4461917  | 0.270225 | 1.65119  | 8 | 0.137306 | 0.495652174 | 0.495652174 |
| Q62048   | Pea15 Pea15a        | Astrocytic phosphoprotein PEA-15 (1      | 0.2815084  | 0.306989 | 0.917    | 8 | 0.385954 | 0.146153846 | 0.146153846 |
| Q62073   | Map3k7 Tak1         | Mitogen-activated protein kinase kinas   | 0.4621155  | 0.324585 | 1.42371  | 8 | 0.19234  | 0.25        | 0.25        |
| Q62077   | Plcg1 Plcg-1        | 1-phosphatidylinositol 4,5-bisphosph     | 0.0746315  | 0.180021 | 0.41457  | 8 | 0.68935  | 0.411111111 | 0.411111111 |

|        |                      |                                                                             |            |          |          |   |          |             |             |
|--------|----------------------|-----------------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q62084 | Ppp1r14b Png         | Protein phosphatase 1 regulatory subunit 14B (Png)                          | 0.022542   | 0.337221 | 0.06685  | 8 | 0.948344 | 0.183333333 | 0.183333333 |
| Q62086 | Pon2                 | Serum paraoxonase/arylesterase 2 (PON2)                                     | 0.3915541  | 0.415016 | 0.94347  | 8 | 0.373058 | 0.533333333 | 0.533333333 |
| Q62092 | Nsg1 NEEP21          | Neuronal vesicle trafficking-associated protein 1 (Nsg1)                    | 0.0554994  | 1.706776 | 0.03252  | 3 | 0.976102 | 0.5         | 0           |
| Q62095 | Ddx3y D1Pas1-rs1     | ATP-dependent RNA helicase DDX3Y (Ddx3y)                                    | -0.2776355 | 0.168413 | -1.64854 | 8 | 0.137854 | 0.2         | 0.2         |
| Q62101 | Prkd1 Pkcm Pkd Prk   | Serine/threonine-protein kinase D1 (Prkd1)                                  | 0.191236   | 0.606522 | 0.3153   | 4 | 0.768298 | 0.55        | 0.15        |
| Q62108 | Dlg4 Dlgh4 Psd95     | Disks large homolog 4 (Postsynaptic density protein 95)                     | -0.1625616 | 0.26726  | -0.60825 | 8 | 0.559888 | 0.6         | 0.6         |
| Q62141 | Sin3b Kiaa0700       | Paired amphipathic helix protein Sin3b                                      | 0.1604399  | 0.452224 | 0.35478  | 7 | 0.733203 | 0.55        | 0.45        |
| Q62165 | Dag1                 | Dystroglycan 1 (Dystroglycan) (Dystroglycan)                                | -0.2079453 | 0.454945 | -0.45708 | 8 | 0.659771 | 0.475       | 0.475       |
| Q62167 | Ddx3x D1Pas1-rs2     | ATP-dependent RNA helicase DDX3X (Ddx3x)                                    | -0.0692545 | 0.195695 | -0.35389 | 8 | 0.732568 | 0.195454545 | 0.195454545 |
| Q62172 | Ralbp1 Rip1          | RalA-binding protein 1 (RalBP1) (Dinitrogenase reductase-binding protein 1) | 0.025943   | 0.715592 | 0.03625  | 3 | 0.973357 | 0.5         | 0           |
| Q62176 | Rbm38 Rnpc1 Seb4     | RNA-binding protein 38 (RNA-binding protein 38)                             | -0.0164235 | 0.189964 | -0.08646 | 7 | 0.933525 | 0.4         | 0.3         |
| Q62186 | Ssr4                 | Translocon-associated protein subunit 4 (Ssr4)                              | -0.0909261 | 0.414285 | -0.21948 | 8 | 0.831775 | 0           | 0           |
| Q62187 | Ttf1                 | Transcription termination factor 1 (TTF1)                                   | -0.5075942 | 0.274907 | -1.84642 | 4 | 0.138563 | 0.5         | 0.1         |
| Q62189 | Snrpa Rnu1a-1        | U1 small nuclear ribonucleoprotein A (Snrpa)                                | 0.1566923  | 0.349394 | 0.44847  | 8 | 0.665712 | 0.346153846 | 0.346153846 |
| Q62193 | Rpa2 Rpa34           | Replication protein A 32 kDa subunit (Rpa2)                                 | 0.112174   | 0.160061 | 0.70082  | 8 | 0.503287 | 0.19        | 0.19        |
| Q62209 | Sycp1 Scp1           | Synaptonemal complex protein 1 (SCP1)                                       | 0.1457391  | 0.668844 | 0.2179   | 4 | 0.838174 | 0.6         | 0.2         |
| Q62241 | Snrpc Snrp1c         | U1 small nuclear ribonucleoprotein C (Snrpc)                                | -0.3892558 | 0.232348 | -1.67531 | 8 | 0.132402 | 0.2         | 0.2         |
| Q62261 | Sptbn1 Elf Spnb-2    | Spectrin beta chain, non-erythrocytic 1 (Sptbn1)                            | -0.0388523 | 0.123306 | -0.31509 | 8 | 0.760756 | 0.315909091 | 0.315909091 |
| Q62276 | Med22 Surf5          | Mediator of RNA polymerase II transcription subunit 22 (Med22)              | -0.3639064 | 0.420004 | -0.86644 | 8 | 0.411482 | 0.35        | 0.35        |
| P61961 | Ufm1                 | Ubiquitin-fold modifier 1 (Ufm1)                                            | 0.4543799  | 0.159561 | 2.84769  | 8 | 0.021556 | 0.133333333 | 0.133333333 |
| Q62280 | Ss18 Ssxt Syt        | Protein SSXT (Protein SYT) (Synovial sarcoma-associated protein 1)          | 0.3853071  | 0.325992 | 1.18195  | 8 | 0.271163 | 0.4         | 0.4         |
| Q62311 | Taf6 Taf2e           | Transcription initiation factor TFIID subunit 6 (Taf6)                      | 0.106166   | 0.557453 | 0.19045  | 8 | 0.853702 | 0.575       | 0.575       |
| Q62313 | Tgoln1 Ttgn1         | Trans-Golgi network integral membrane protein 1 (Tgoln1)                    | -0.9349753 | 0.597769 | -1.56411 | 2 | 0.258244 | 0.6         | 0           |
| Q62318 | Trim28 Kap1 Krip1    | Transcription intermediary factor 1-beta (Trim28)                           | -0.0380761 | 0.068753 | -0.55381 | 8 | 0.594848 | 0.215384615 | 0.215384615 |
| Q62348 | Tsn                  | Translin (EC 3.1.-.-) (Component 3 of telomerase)                           | -0.1526419 | 0.654707 | -0.23315 | 8 | 0.821503 | 0.393333333 | 0.393333333 |
| Q9D2V7 | Coro7                | Coronin-7 (Crn7) (70 kDa WD repeat domain protein 7)                        | 0.4489904  | 0.176517 | 2.54361  | 8 | 0.034516 | 0.366666667 | 0.366666667 |
| Q62356 | Fstl1 Frp Fstl Tsc36 | Follistatin-related protein 1 (Follistatin-related protein 1)               | -0.3034866 | 0.383637 | -0.79108 | 3 | 0.486672 | 0.55        | 0.05        |
| Q62376 | Snrnp70 Snrp70       | U1 small nuclear ribonucleoprotein 70 (Snrnp70)                             | -0.0150856 | 0.251599 | -0.05996 | 8 | 0.953659 | 0.203333333 | 0.203333333 |
| Q62383 | Supt6h Kiaa0162      | Transcription elongation factor SPT6 (Supt6h)                               | -0.0919877 | 0.108731 | -0.84601 | 8 | 0.422128 | 0.444444444 | 0.444444444 |
| Q62384 | Zpr1 Zfp259 Znf259   | Zinc finger protein ZPR1 (Zinc finger protein 259)                          | 0.0661704  | 0.154672 | 0.42781  | 8 | 0.680073 | 0.466666667 | 0.466666667 |
| Q62388 | Atm                  | Serine-protein kinase ATM (EC 2.7.11.1) (Ataxia telangiectasia mutated)     | -0.0509211 | 0.661999 | -0.07692 | 3 | 0.94353  | 0.6         | 0.1         |
| Q62393 | Tpd52                | Tumor protein D52 (mD52)                                                    | -0.6876681 | 0.29771  | -2.30986 | 2 | 0.147151 | 0.6         | 0           |
| Q62414 | Neurod2 Ndrf         | Neurogenic differentiation factor 2 (Neurod2)                               | -0.3190847 | 0.168295 | -1.89598 | 3 | 0.154242 | 0.6         | 0.1         |
| Q62418 | Dbnl Abp1 Sh3p7      | Drebrin-like protein (Actin-binding protein 1)                              | 0.2365241  | 0.178864 | 1.32237  | 8 | 0.222599 | 0.24        | 0.24        |
| Q62419 | Sh3gl1 Sh3d2b        | Endophilin-A2 (Endophilin-2) (SH3 domain-containing protein 1)              | -0.0093357 | 0.143031 | -0.06527 | 7 | 0.949784 | 0.25        | 0.15        |
| Q62422 | Ostf1 Sh3d3 Sh3p2    | Osteoclast-stimulating factor 1 (SH3 domain-containing protein 2)           | 0.2488455  | 0.212163 | 1.1729   | 8 | 0.274575 | 0.166666667 | 0.166666667 |
| Q9QXL1 | Kif21b Kif6          | Kinesin-like protein KIF21B (Kinesin-like protein 21B)                      | 0.4428938  | 0.162904 | 2.71874  | 8 | 0.0263   | 0.523529412 | 0.523529412 |
| Q62426 | Cstb Cst6 Stfb       | Cystatin-B (Stefin-B)                                                       | 0.1395692  | 0.304844 | 0.45784  | 8 | 0.659248 | 0.333333333 | 0.333333333 |

|          |                     |                                         |            |          |          |   |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q62432   | Smad2 Madh2 Madr    | Mothers against decapentaplegic homoc   | 0.1067487  | 0.215464 | 0.49544  | 8 | 0.633613 | 0.32222222  | 0.32222222  |
| Q62433   | Ndrp1 Ndr1 Ndr1 Td  | Protein NDRG1 (N-myc downstream-r       | -0.17676   | 0.506516 | -0.34897 | 4 | 0.744706 | 0.55        | 0.15        |
| Q62446   | Fkbp3 Fkbp25        | Peptidyl-prolyl cis-trans isomerase FKE | -0.0929405 | 0.11718  | -0.79314 | 8 | 0.450576 | 0.156       | 0.156       |
| Q62465   | Vat1 Vat-1          | Synaptic vesicle membrane protein VA    | -0.1069577 | 0.194284 | -0.55052 | 8 | 0.596994 | 0.4         | 0.4         |
| Q62481   | Vps72 Tcf1 Yl1      | Vacuolar protein sorting-associated pr  | 0.1474506  | 0.716272 | 0.20586  | 3 | 0.85008  | 0.666666667 | 0.166666667 |
| Q62511   | Zfp91 Pzf           | E3 ubiquitin-protein ligase ZFP91 (EC   | -0.0498015 | 0.276923 | -0.17984 | 5 | 0.86434  | 0.3         | 0           |
| Q62523   | Zyx                 | Zyxin                                   | 0.5432447  | 0.340194 | 1.59687  | 8 | 0.148962 | 0.361904762 | 0.361904762 |
| Q63810   | Ppp3r1 Cnb          | Calcineurin subunit B type 1 (Protein p | 0.808764   | 0.559845 | 1.44462  | 8 | 0.186565 | 0.35        | 0.35        |
| Q63829   | Commd3 Bup          | COMM domain-containing protein 3 (B     | -0.0641115 | 0.13307  | -0.48179 | 8 | 0.64286  | 0.266666667 | 0.266666667 |
| Q63844   | Mapk3 Erk1 Prkm3    | Mitogen-activated protein kinase 3 (MA  | 0.0070013  | 0.20257  | 0.03456  | 8 | 0.973276 | 0.455555556 | 0.455555556 |
| Q63850   | Nup62               | Nuclear pore glycoprotein p62 (62 kDa   | 0.3231902  | 0.230444 | 1.40247  | 8 | 0.198368 | 0.433333333 | 0.433333333 |
| Q63932   | Map2k2 Mek2 Mkk2    | Dual specificity mitogen-activated prot | 0.2711681  | 0.145844 | 1.85931  | 8 | 0.100037 | 0.4         | 0.4         |
| Q64010   | Crk Crko            | Adapter molecule crk (Proto-oncogene    | 0.1346267  | 0.127702 | 1.05423  | 8 | 0.322574 | 0.263157895 | 0.263157895 |
| Q64012-2 | Raly Merc           | RNA-binding protein Raly (Maternally-e  | 0.1668433  | 0.238679 | 0.69903  | 8 | 0.504346 | 0.260869565 | 0.260869565 |
| Q64028   | Phc1 Edr Edr1 Rae2  | Polyhomeotic-like protein 1 (mPH1) (E   | -0.1942197 | 0.425925 | -0.45599 | 8 | 0.660517 | 0.375       | 0.375       |
| Q640M1   | Utp14a JsdX Kiaa02  | U3 small nucleolar RNA-associated prc   | -0.0480386 | 0.278486 | -0.1725  | 8 | 0.867329 | 0.490909091 | 0.490909091 |
| Q64104   | Nr2e1 Tll Tlx       | Nuclear receptor subfamily 2 group E r  | 0.2460475  | 0.159393 | 1.54366  | 3 | 0.220362 | 0.7         | 0.2         |
| Q64127   | Trim24 Tif1 Tif1a   | Transcription intermediary factor 1-alp | -0.2006863 | 0.293255 | -0.68434 | 8 | 0.513093 | 0.3         | 0.3         |
| Q64133   | Maoa                | Amine oxidase [flavin-containing] A (EC | -0.4720942 | 0.318007 | -1.48454 | 7 | 0.181242 | 0.533333333 | 0.433333333 |
| Q64152-2 | Btf3                | Transcription factor BTF3 (Nascent pol  | 0.022021   | 0.215166 | 0.10234  | 8 | 0.921002 | 0.294736842 | 0.294736842 |
| Q64261   | Cdk6 Cdkn6 Crk2     | Cyclin-dependent kinase 6 (EC 2.7.11.   | -0.0622248 | 0.21897  | -0.28417 | 8 | 0.783496 | 0.34        | 0.34        |
| Q64310   | Surf4 Surf-4        | Surfeit locus protein 4                 | 0.2501784  | 0.365752 | 0.68401  | 8 | 0.51329  | 0.1         | 0.1         |
| Q64311   | Ntan1               | Protein N-terminal asparagine amidohy   | 0.1129196  | 0.154161 | 0.73248  | 6 | 0.491488 | 0.35        | 0.15        |
| Q64317   | Dlx1                | Homeobox protein DLX-1                  | 1.0637136  | 0.968591 | 1.09821  | 2 | 0.386664 | 0.6         | 0           |
| Q64318   | Zeb1 Areb6 Tcf8 Zfh | Zinc finger E-box-binding homeobox 1    | 0.1847919  | 0.31832  | 0.58052  | 8 | 0.577545 | 0.45        | 0.45        |
| Q64324   | Stxbp2 Unc18b       | Syntaxin-binding protein 2 (MUSEC1)     | -0.0286456 | 0.224861 | -0.12739 | 1 | 0.919334 | 0.7         | 0           |
| Q64327   | Mea1 Mea            | Male-enhanced antigen 1 (MEA-1)         | -0.5516041 | 0.902412 | -0.61126 | 4 | 0.574062 | 0.4         | 0           |
| Q64332   | Syn2                | Synapsin-2 (Synapsin II)                | -0.1749785 | 0.390796 | -0.44775 | 1 | 0.731996 | 0.7         | 0           |
| Q64336   | Tbr1                | T-box brain protein 1 (T-brain-1) (TBR- | -0.1686209 | 0.334071 | -0.50475 | 8 | 0.627345 | 0.366666667 | 0.366666667 |
| Q8BFQ8   | Gatd1 Pddc1         | Glutamine amidotransferase-like class   | 0.4355741  | 0.145979 | 2.98381  | 8 | 0.017498 | 0.325       | 0.325       |
| Q64362   | Aktip Fif Ft1 Fts   | AKT-interacting protein (FT1) (Fused tc | -0.3027693 | 0.324538 | -0.93292 | 8 | 0.378156 | 0.433333333 | 0.433333333 |
| Q64373   | Bcl2l1 Bcl2l Bclx   | Bcl-2-like protein 1 (Bcl2-L-1) (Apopto | 0.6888893  | 0.940794 | 0.73224  | 5 | 0.496886 | 0.55        | 0.25        |
| Q64378   | Fkbp5 Fkbp51        | Peptidyl-prolyl cis-trans isomerase FKE | 0.1019979  | 0.487241 | 0.20934  | 8 | 0.839417 | 0.4         | 0.4         |
| Q64436   | Atp4a               | Potassium-transporting ATPase alpha     | 0.0356882  | 0.29292  | 0.12184  | 1 | 0.922817 | 0.7         | 0           |
| Q64442   | Sord Sdh1           | Sorbitol dehydrogenase (SDH) (SORD)     | 0.3672104  | 0.347255 | 1.05747  | 8 | 0.321183 | 0.48        | 0.48        |
| Q64449   | Mrc2 Kiaa0709       | C-type mannose receptor 2 (Lectin larr  | 0.0364833  | 0.508136 | 0.0718   | 8 | 0.944525 | 0.475       | 0.475       |
| Q64467   | Gapdhs Gapd-s Gap   | Glyceraldehyde-3-phosphate dehydrog     | 0.5453125  | 1.058748 | 0.51505  | 8 | 0.620441 | 0.3         | 0.3         |
| Q64511   | Top2b               | DNA topoisomerase 2-beta (EC 5.6.2.2    | 0.2392711  | 0.274208 | 0.87259  | 8 | 0.408313 | 0.3421875   | 0.3421875   |

|          |                     |                                                                                    |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q64514-2 | Tpp2                | Tripeptidyl-peptidase 2 (TPP-2) (EC 3.4.11.1)                                      | -0.054766  | 0.161373 | -0.33938 | 8 | 0.743065 | 0.331818182 | 0.331818182 |
| Q64520   | Guk1 Gmk            | Guanylate kinase (EC 2.7.4.8) (GMP kinase)                                         | 0.3534329  | 0.370014 | 0.95519  | 3 | 0.40995  | 0.666666667 | 0.166666667 |
| Q64521   | Gpd2 Gdm1           | Glycerol-3-phosphate dehydrogenase, cytosolic (EC 1.1.1.6)                         | -0.0640713 | 0.108849 | -0.58863 | 8 | 0.572352 | 0.425       | 0.425       |
| Q64674   | Srm                 | Spermidine synthase (SPDSY) (EC 2.5.1.15)                                          | 0.2214882  | 0.193248 | 1.14614  | 8 | 0.284863 | 0.247619048 | 0.247619048 |
| Q64727   | Vcl                 | Vinculin (Metavinculin)                                                            | 0.1938054  | 0.14156  | 1.36907  | 8 | 0.208178 | 0.357142857 | 0.357142857 |
| Q64729   | Tgfr1               | TGF-beta receptor type-1 (TGFR-1) (EC 2.7.10.1)                                    | -0.2937336 | 0.434599 | -0.67587 | 6 | 0.524302 | 0.2         | 0           |
| Q64737   | Gart                | Trifunctional purine biosynthetic protein (EC 2.7.1.22)                            | -0.0266592 | 0.107575 | -0.24782 | 8 | 0.810516 | 0.248214286 | 0.248214286 |
| Q64HY3   | Sp9                 | Transcription factor Sp9                                                           | 0.2738646  | 0.580434 | 0.47183  | 5 | 0.656922 | 0.6         | 0.3         |
| Q65Z40   | Wapl Kiaa0261 Wap   | Wings apart-like protein homolog (Drosophila) (EC 3.6.1.1)                         | -0.016487  | 0.169153 | -0.09747 | 8 | 0.924752 | 0.466666667 | 0.466666667 |
| Q66JR8   | Ptms                | Eukaryotic translation initiation factor 4E (eIF4E) (EC 2.3.2.1)                   | -0.9079307 | 0.826477 | -1.09856 | 3 | 0.352223 | 0.5         | 0           |
| Q66JV4   | Rbm12b2 Rbm12b1     | RNA-binding protein 12B-B (RNA-binding protein 12B-B) (EC 2.3.2.1)                 | -0.6210937 | 0.385034 | -1.61309 | 5 | 0.167644 | 0.55        | 0.25        |
| Q66JX5   | Cep43 Fgfr1op       | Centrosomal protein 43 (FGFR1 oncogene) (EC 2.7.10.1)                              | 0.2485038  | 0.183071 | 1.35742  | 8 | 0.211698 | 0.542857143 | 0.542857143 |
| Q66PY1   | Scube3              | Signal peptide, CUB and EGF-like domain-containing protein 3 (EC 2.7.1.1)          | 0.2639259  | 0.324542 | 0.81323  | 3 | 0.475633 | 0.5         | 0           |
| Q67FY2   | Bcl9l B9l           | B-cell CLL/lymphoma 9-like protein (BCL9) (EC 2.7.1.1)                             | 0.0950225  | 0.327038 | 0.29056  | 8 | 0.778781 | 0.5         | 0.5         |
| Q689Z5   | Sbno1 Sno1          | Protein strawberry notch homolog 1 (Drosophila) (EC 2.7.1.1)                       | -0.1619774 | 0.7501   | -0.21594 | 1 | 0.864607 | 0.7         | 0           |
| Q68ED7   | Crtc1 Kiaa0616 Mec  | CREB-regulated transcription coactivator 1 (EC 2.7.1.1)                            | 0.4358218  | 0.546371 | 0.79767  | 6 | 0.455464 | 0.2         | 0           |
| Q68FD5   | Cltc                | Clathrin heavy chain 1                                                             | -0.1142316 | 0.149426 | -0.76447 | 8 | 0.466535 | 0.26031746  | 0.26031746  |
| Q68FD9   | Kiaa1549            | UPF0606 protein KIAA1549                                                           | -0.0635978 | 0.372514 | -0.17073 | 1 | 0.89235  | 0.7         | 0           |
| Q68FE6   | Ripor1 Fam65a Kiaa  | Rho family-interacting cell polarization protein 1 (EC 2.7.1.1)                    | 0.4332991  | 1.375408 | 0.31503  | 4 | 0.768487 | 0.4         | 0           |
| Q68FE8   | Znf280d Suhw4 Zfp   | Zinc finger protein 280D (Suppressor of hairless) (EC 2.3.2.1)                     | -0.8890664 | 0.089394 | -9.9455  | 1 | 0.063796 | 0.7         | 0           |
| Q68FF6   | Git1                | ARF GTPase-activating protein GIT1 (ARF GAP) (EC 5.4.2.1)                          | 0.1803643  | 0.191956 | 0.93961  | 8 | 0.374915 | 0.427777778 | 0.427777778 |
| Q68FF7   | Slain1              | SLAIN motif-containing protein 1                                                   | 0.0342127  | 0.21306  | 0.16058  | 6 | 0.877696 | 0.5         | 0.3         |
| Q68FH4   | Galk2               | N-acetylgalactosamine kinase (EC 2.7.1.1)                                          | 0.4551717  | 0.249293 | 1.82585  | 4 | 0.14191  | 0.6         | 0.2         |
| Q68FL4   | Ahcyl2              | Putative adenosylhomocysteinase 3 (AHCYL2) (EC 2.1.1.1)                            | 0.2162279  | 0.542136 | 0.39884  | 3 | 0.716701 | 0.5         | 0           |
| Q68FL6   | Mars1 Mars          | Methionine--tRNA ligase, cytoplasmic (MARS1) (EC 2.3.2.1)                          | -0.1256636 | 0.191772 | -0.65528 | 8 | 0.530677 | 0.348571429 | 0.348571429 |
| Q69Z36   | Mex3b Kiaa2009 Rkl  | RNA-binding protein MEX3B (RING finger domain) (EC 2.3.2.1)                        | -0.119849  | 0.208052 | -0.57605 | 8 | 0.58042  | 0.433333333 | 0.433333333 |
| Q69Z99   | Znf512 Kiaa1805 Zf  | Zinc finger protein 512                                                            | 0.3085826  | 0.751309 | 0.41073  | 8 | 0.692054 | 0.38        | 0.38        |
| Q69ZA1   | Cdk13 Cdc2l5 Kiaa   | Cyclin-dependent kinase 13 (EC 2.7.1.1)                                            | 0.2374913  | 0.366107 | 0.64869  | 8 | 0.53471  | 0.45        | 0.45        |
| Q69ZC8   | Gpalpp1 Kiaa1704    | GPALPP motifs-containing protein 1                                                 | 0.0382073  | 0.430545 | 0.08874  | 5 | 0.932732 | 0.7         | 0.4         |
| Q69Zl1   | Sh3rf1 Kiaa1494 Pc  | E3 ubiquitin-protein ligase SH3RF1 (E3 ubiquitin-protein ligase) (EC 2.3.2.27)     | 0.0757551  | 0.063644 | 1.1903   | 1 | 0.444826 | 0.7         | 0           |
| Q69ZK0   | Prex1 Kiaa1415      | Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase (EC 3.1.3.49)               | -0.1626876 | 0.578609 | -0.28117 | 4 | 0.792525 | 0.5         | 0.1         |
| Q69ZK9   | NLgn2 Kiaa1366      | Neurologin-2                                                                       | -0.121836  | 0.22247  | -0.54765 | 6 | 0.603691 | 0.5         | 0.3         |
| Q69ZP3-2 | Pnkd Brp17 Kiaa1118 | Probable hydrolase PNKD (EC 3.1.1.1) (EC 3.1.1.1)                                  | 1.8223698  | 3.568366 | 0.5107   | 1 | 0.699406 | 0.7         | 0           |
| Q69ZQ2   | Isy1 Kiaa1160       | Pre-mRNA-splicing factor ISY1 homolog (EC 2.7.7.42)                                | 0.1288964  | 0.14695  | 0.87714  | 8 | 0.405979 | 0.277777778 | 0.277777778 |
| Q69ZS7   | Hbs1l Hbs1 Kiaa1010 | HBS1-like protein (EC 3.6.5.-)                                                     | -0.0491265 | 0.099006 | -0.4962  | 8 | 0.633099 | 0.47        | 0.47        |
| Q69ZS8   | Kazn Kaz Kiaa1026   | Kazrin                                                                             | -0.1034138 | 0.484769 | -0.21333 | 6 | 0.838137 | 0.2         | 0           |
| Q9CZ04-2 | Cops7a Csn7a        | COP9 signalosome complex subunit 7                                                 | 0.4305825  | 0.152297 | 2.82726  | 8 | 0.022244 | 0.333333333 | 0.333333333 |
| Q69ZX6   | Morc2a Kiaa0852 Zc  | ATPase MORC2A (EC 3.6.1.-) (MORC family domain-containing protein 2A) (EC 3.6.1.-) | 0.172987   | 0.30896  | 0.5599   | 8 | 0.590876 | 0.590909091 | 0.590909091 |

|          |            |            |                                                 |            |          |          |   |          |             |             |
|----------|------------|------------|-------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6A026   | Pds5a      | Kiaa0648   | Sister chromatid cohesion protein PDS5          | -0.4944126 | 0.266686 | -1.85391 | 8 | 0.100869 | 0.364       | 0.364       |
| E9Q0T0   | Ppt2       |            | Palmitoyl-protein thioesterase 2                | 0.419696   | 0.089134 | 4.70858  | 3 | 0.018131 | 0.55        | 0.05        |
| Q6A037   | N4bp1      | Kiaa0615   | NEDD4-binding protein 1 (N4BP1) (EC             | 0.8830815  | 0.987702 | 0.89408  | 7 | 0.400975 | 0.1         | 0           |
| Q6A058   | Armxc2     | Kiaa0512   | Armado repeat-containing X-linked p             | -0.4644323 | 0.426543 | -1.08883 | 2 | 0.389947 | 0.6         | 0           |
| Q6A065   | Cep170     | Kiaa0470   | Centrosomal protein of 170 kDa (Cep             | 0.1460564  | 0.151748 | 0.96249  | 8 | 0.363988 | 0.336170213 | 0.336170213 |
| Q6A068   | Cdc5l      | Kiaa0432   | Cell division cycle 5-like protein (Cdc5        | -0.0371146 | 0.175563 | -0.2114  | 8 | 0.837859 | 0.302631579 | 0.302631579 |
| Q6A085   | Znf629     | Kiaa0326   | Zf Zinc finger protein 629                      | 0.2443459  | 0.408227 | 0.59855  | 8 | 0.566028 | 0.4         | 0.4         |
| Q6A0A2   | Larp4b     | D13Wsu64e  | La-related protein 4B (La ribonucleopr          | 0.2226594  | 0.177626 | 1.25353  | 8 | 0.245406 | 0.45        | 0.45        |
| Q6A0A9   | FAM120A    | Kiaa0183   | Constitutive coactivator of PPAR-gamr           | -0.2748704 | 0.268238 | -1.02473 | 8 | 0.335477 | 0.3875      | 0.3875      |
| Q6A0D4   | Rftn1      | Kiaa0084   | Raftlin (Raft-linking protein)                  | 0.5491175  | 0.786697 | 0.698    | 3 | 0.535412 | 0.7         | 0.2         |
| Q6A4J8   | Usp7       | Hausp      | Ubiquitin carboxyl-terminal hydrolase           | -0.0112069 | 0.126942 | -0.08828 | 8 | 0.931821 | 0.38        | 0.38        |
| Q6DFV1   | Ncapg2     | Luzp5      | Mtb Condensin-2 complex subunit G2 (Ch          | -0.9274126 | 0.810293 | -1.14454 | 3 | 0.335441 | 0.6         | 0.1         |
| Q6DFV3   | Arhgap21   | Arhgap10   | Rho GTPase-activating protein 21 (Rhc           | -0.1220817 | 0.328814 | -0.37128 | 8 | 0.72007  | 0.572727273 | 0.572727273 |
| Q6DFW4   | Nop58      | Nol5       | Nucleolar protein 58 (MSSP) (Nucleola           | -0.0001565 | 0.240387 | -0.00065 | 8 | 0.999496 | 0.268       | 0.268       |
| Q6DFZ1   | Gbf1       |            | Golgi-specific brefeldin A-resistance gu        | -0.2470645 | 0.401889 | -0.61476 | 8 | 0.555792 | 0.51        | 0.51        |
| Q6DIB5   | Megf10     |            | Multiple epidermal growth factor-like d         | -0.0378219 | 0.207587 | -0.1822  | 4 | 0.864288 | 0.65        | 0.25        |
| Q6DIC0   | Smarca2    | Baf190b    | B Probable global transcription activator       | -0.9388768 | 0.610431 | -1.53805 | 6 | 0.174953 | 0.55        | 0.35        |
| Q6DID3   | Scaf8      | Kiaa1116   | Rbr SR-related and CTD-associated factor        | 0.0231548  | 0.323108 | 0.07166  | 8 | 0.944629 | 0.4         | 0.4         |
| Q6DID5   | Pwwp3a     | Mum1       | PWWP domain-containing DNA repair f             | 0.0786772  | 0.418728 | 0.1879   | 2 | 0.868295 | 0.6         | 0           |
| Q6DVA0   | Lemd2      | Lem2       | LEM domain-containing protein 2 (Nuc            | 0.2394501  | 0.211809 | 1.1305   | 6 | 0.301421 | 0.55        | 0.35        |
| Q6GQT9   | Nomo1      |            | BOS complex subunit NOMO1 (Nodal                | -0.1994351 | 0.169039 | -1.17982 | 8 | 0.271964 | 0.392307692 | 0.392307692 |
| Q6GSS7   | Hist2h2aa1 | Hist2h     | Histone H2A type 2-A (H2a-614) (H2a             | -1.1163766 | 1.181476 | -0.9449  | 7 | 0.376174 | 0.1         | 0           |
| Q6GT24   | Prdx6      |            | Peroxiredoxin-6 (EC 1.11.1.27)                  | 0.1741559  | 0.168892 | 1.03117  | 8 | 0.332627 | 0.219230769 | 0.219230769 |
| Q6GTH9   | Neurog2    |            | Neurogenin 2                                    | -0.4841254 | 0.26203  | -1.8476  | 5 | 0.123931 | 0.3         | 0           |
| Q6GTY4   | Sel1l      | Sel1h      | Sel-1 suppressor of lin-12-like (C. eleg        | 0.2088585  | 0.484551 | 0.43104  | 7 | 0.679405 | 0.525       | 0.425       |
| Q6IQX8   | Znf219     | Zfp219     | Zinc finger protein 219                         | 0.2544213  | 0.300859 | 0.84565  | 8 | 0.422319 | 0.355555556 | 0.355555556 |
| Q6IR34   | Gpsm1      | Ags3       | C10a G-protein-signaling modulator 1 (Activ     | 0.3598829  | 0.279923 | 1.28565  | 8 | 0.23453  | 0.458333333 | 0.458333333 |
| Q6IRU2   | Tpm4       |            | Tropomyosin alpha-4 chain (Tropomyc             | 0.3658328  | 0.32826  | 1.11446  | 8 | 0.29744  | 0.338235294 | 0.338235294 |
| Q6IRU7   | Cep78      |            | Centrosomal protein of 78 kDa (Cep78            | 0.7973464  | 0.354988 | 2.24612  | 1 | 0.266658 | 0.7         | 0           |
| Q6KAM2   | Ighg3      | Al324046   | mFl MFLJ00385 protein                           | 0.1665407  | 0.905253 | 0.18397  | 3 | 0.865769 | 0.566666667 | 0.066666667 |
| Q6KAS7   | Znf521     | Evi3       | Zfp521 Zinc finger protein 521 (Ecotropic viral | 0.4368201  | 0.528704 | 0.82621  | 6 | 0.440295 | 0.5         | 0.3         |
| Q6KAU4   | Mvb12b     | Fam125b    | Multivesicular body subunit 12B (ESCI           | 0.0227154  | 0.148179 | 0.1533   | 8 | 0.88196  | 0.472727273 | 0.472727273 |
| Q6KCD5   | Nipbl      | Sccl       | Nipped-B-like protein (Delangin homol           | 0.0884129  | 0.616032 | 0.14352  | 8 | 0.889429 | 0.526666667 | 0.526666667 |
| Q6NS46   | Pdcd11     | Alg4       | Kiaa01 Protein RRP5 homolog (Apoptosis-link     | 0.2615778  | 0.438065 | 0.59712  | 7 | 0.569229 | 0.5         | 0.4         |
| Q6NSR8   | Npepl1     |            | Probable aminopeptidase NPEPL1 (EC              | 0.7332967  | 0.637401 | 1.15045  | 7 | 0.287739 | 0.4         | 0.3         |
| Q6NV66   | Zfp646     |            | Zinc finger protein 646                         | 0.2351244  | 0.442997 | 0.53076  | 4 | 0.623687 | 0.4         | 0           |
| Q6NV83-2 | U2surp     | Sr140      | U2 snRNP-associated SURP motif-con              | -0.022853  | 0.299906 | -0.0762  | 8 | 0.941131 | 0.457692308 | 0.457692308 |
| Q6NV99   | Haus6      | 6230416J20 | HAUS augmin-like complex, subunit 6             | -0.19786   | 0.493456 | -0.40097 | 3 | 0.715294 | 0.65        | 0.15        |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6NVC3 | Rad23b             | UV excision repair protein RAD23         | 0.2492111  | 0.517304 | 0.48175  | 8 | 0.642886 | 0.1         | 0.1         |
| Q6NVE5 | Prr36 BC068157     | cDNA sequence BC068157                   | 0.4269341  | 0.224845 | 1.89879  | 8 | 0.094143 | 0.288235294 | 0.288235294 |
| Q6NVF9 | Cpsf6              | Cleavage and polyadenylation specific    | 0.170228   | 0.240684 | 0.70727  | 8 | 0.499482 | 0.131578947 | 0.131578947 |
| Q6NX62 | Exosc8             | Ribosomal RNA-processing protein 43      | 0.1604686  | 0.223248 | 0.71879  | 8 | 0.492726 | 0.475       | 0.475       |
| Q6NXI6 | Rprd2 Kiaa0460     | Regulation of nuclear pre-mRNA doma      | -0.0417461 | 0.258265 | -0.16164 | 8 | 0.875597 | 0.5         | 0.5         |
| Q6NXX2 | Znf532 Kiaa1629 Zf | Zinc finger protein 532                  | -0.2076505 | 0.271026 | -0.76617 | 5 | 0.478169 | 0.6         | 0.3         |
| Q6NXN1 | Szrd1 D4Ertd22e    | SUZ RNA-binding domain-containing (      | -0.032683  | 0.300827 | -0.10864 | 8 | 0.916161 | 0.5         | 0.5         |
| Q6NZB0 | Dnajc8             | DnaJ homolog subfamily C member 8        | 0.0721348  | 0.210738 | 0.3423   | 8 | 0.740947 | 0.223076923 | 0.223076923 |
| Q6NZD2 | Snx1               | Sorting nexin-1                          | 0.0935006  | 0.118571 | 0.78856  | 8 | 0.453101 | 0.333333333 | 0.333333333 |
| Q6NZF1 | Zc3h11a Kiaa0663   | Zinc finger CCCH domain-containing p     | 0.374263   | 0.318972 | 1.17334  | 8 | 0.274406 | 0.407692308 | 0.407692308 |
| Q6NZL0 | Mtcl3 Soga3        | Microtubule cross-linking factor 3       | 0.4897708  | 0.34814  | 1.40682  | 8 | 0.19712  | 0.45        | 0.45        |
| Q6NZL1 | Dhx37              | RNA helicase (EC 3.6.4.13)               | 0.2272403  | 0.327008 | 0.69491  | 7 | 0.509515 | 0.233333333 | 0.133333333 |
| Q6NZN0 | Rbm26              | RNA-binding protein 26 (Protein expre    | 0.2928392  | 0.570037 | 0.51372  | 7 | 0.623262 | 0.48        | 0.38        |
| Q6NZQ6 | Znf740 Zfp740      | Zinc finger protein 740                  | 0.0005312  | 0.237243 | 0.00224  | 7 | 0.998276 | 0.4         | 0.3         |
| Q6NZR2 | Msantd2            | Myb/SANT-like DNA-binding domain-cr      | -0.2960342 | 0.473907 | -0.62467 | 2 | 0.595954 | 0.6         | 0           |
| Q6NZR5 | Skic2              | Superkiller complex protein 2 (Ski2) (E  | -0.3287629 | 0.234286 | -1.40326 | 7 | 0.203309 | 0.566666667 | 0.466666667 |
| Q6P069 | Sri                | Sorcin                                   | 0.1460569  | 0.205935 | 0.70924  | 8 | 0.498322 | 0.288888889 | 0.288888889 |
| Q8R0A0 | Gtf2f2             | General transcription factor IIF subunit | 0.4194825  | 0.162097 | 2.58784  | 8 | 0.032221 | 0.433333333 | 0.433333333 |
| Q8K341 | Atat1 Mec17        | Alpha-tubulin N-acetyltransferase 1 (A   | 0.4192596  | 0.125156 | 3.34989  | 8 | 0.010082 | 0.263157895 | 0.263157895 |
| Q6P1G0 | Heatr6             | HEAT repeat-containing protein 6         | 1.0263578  | 0.73756  | 1.39156  | 8 | 0.201528 | 0.4         | 0.4         |
| Q6P1H6 | Ankle2 D5Ertd585e  | Ankyrin repeat and LEM domain-contai     | -0.1568215 | 0.232382 | -0.67484 | 8 | 0.518799 | 0.42        | 0.42        |
| Q6P1J1 | Crmp1              | Collapsin response mediator protein 1    | -0.6785981 | 0.484909 | -1.39943 | 3 | 0.25616  | 0.5         | 0           |
| Q6P1Y9 | Exoc1 Sec3l1       | Exocyst complex component 1              | -0.0325435 | 0.409397 | -0.07949 | 2 | 0.94388  | 0.65        | 0.05        |
| Q6P2B1 | Tnp03              | Transportin-3                            | 0.0781431  | 0.390513 | 0.2001   | 8 | 0.846393 | 0.323076923 | 0.323076923 |
| Q6P2K6 | Ppp4r3a Kiaa2010 f | Serine/threonine-protein phosphatase     | -0.0917528 | 0.207865 | -0.44141 | 8 | 0.670605 | 0.357142857 | 0.357142857 |
| Q6P2L6 | Nsd3 Whsc1l1       | Histone-lysine N-methyltransferase NS    | -0.1436428 | 0.289844 | -0.49559 | 6 | 0.637812 | 0.2         | 0           |
| Q6P2L7 | Golm2 Casc4        | Protein GOLM2 (Cancer susceptibility     | 0.0479664  | 0.112239 | 0.42736  | 3 | 0.697937 | 0.6         | 0.1         |
| Q6P3A8 | Bckdhh             | 2-oxoisovalerate dehydrogenase subun     | -0.1173305 | 0.302691 | -0.38763 | 8 | 0.708403 | 0.442857143 | 0.442857143 |
| Q6P3Y5 | Znf280c Kiaa1584 S | Zinc finger protein 280C (Suppressor     | -0.0629071 | 0.237725 | -0.26462 | 8 | 0.797991 | 0.52        | 0.52        |
| Q6P4S6 | Sik3 Kiaa0999 Qsk  | Serine/threonine-protein kinase SIK3 (   | -0.7885796 | 0.314277 | -2.50919 | 1 | 0.241434 | 0.7         | 0           |
| Q6P4S8 | Ints1              | Integrator complex subunit 1 (Int1)      | -0.4805111 | 0.429323 | -1.11923 | 8 | 0.295519 | 0.516666667 | 0.516666667 |
| Q6P4T2 | Snrnp200 Kiaa0788  | U5 small nuclear ribonucleoprotein 20    | -0.2282358 | 0.221931 | -1.02841 | 8 | 0.333844 | 0.36        | 0.36        |
| Q6P542 | Abcf1              | ATP-binding cassette sub-family F men    | -0.0137789 | 0.125065 | -0.11017 | 8 | 0.914985 | 0.307407407 | 0.307407407 |
| Q6P549 | Inpp1 Ship2        | Phosphatidylinositol 3,4,5-trisphosph    | 0.1497338  | 0.362355 | 0.41322  | 7 | 0.691807 | 0.5         | 0.4         |
| Q6P5B0 | Rrp12 Kiaa0690     | RRP12-like protein                       | 0.4025763  | 0.440209 | 0.91451  | 8 | 0.387181 | 0.557142857 | 0.557142857 |
| Q6P5C5 | Smug1              | Single-strand selective monofunctiona    | -0.3214409 | 0.27735  | -1.15897 | 8 | 0.279891 | 0.42        | 0.42        |
| Q6P5D3 | Dhx57              | Putative ATP-dependent RNA helicase I    | -0.1046082 | 0.594305 | -0.17602 | 2 | 0.87649  | 0.6         | 0           |
| Q6P5D8 | Smchd1 Kiaa0650    | Structural maintenance of chromosom      | -0.1838231 | 0.146578 | -1.25409 | 8 | 0.245211 | 0.410638298 | 0.410638298 |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6P5E4   | Uggt1 Gt Ugcgl1 Ugi | UDP-glucose:glycoprotein glucosyltran    | 0.0438194  | 0.132197 | 0.33147  | 8 | 0.748806 | 0.358536585 | 0.358536585 |
| Q6P5F6   | Slc39a10 Kiaa1265   | Zinc transporter ZIP10 (Solute carrier f | 0.0055182  | 0.427446 | 0.01291  | 8 | 0.990016 | 0.266666667 | 0.266666667 |
| Q6P5F7   | Ttyh3 Kiaa1691      | Protein tweety homolog 3 (mTTY3) (Vo     | -0.2652556 | 0.388255 | -0.6832  | 8 | 0.513777 | 0.48        | 0.48        |
| Q6P5F9   | Xpo1 Crm1           | Exportin-1 (Exp1) (Chromosome regic      | -0.0277571 | 0.152949 | -0.18148 | 8 | 0.860505 | 0.3         | 0.3         |
| Q6P5H2   | Nes                 | Nestin                                   | 0.210802   | 0.101485 | 2.07717  | 8 | 0.071428 | 0.234228188 | 0.234228188 |
| Q6P5I1   | Sdf2                | Stromal cell derived factor 2            | -0.0706667 | 0.388688 | -0.18181 | 5 | 0.862874 | 0.566666667 | 0.266666667 |
| Q6P6I6   | Polr2m Grin1a       | DNA-directed RNA polymerase II subur     | 0.3338255  | 0.734025 | 0.45479  | 6 | 0.665253 | 0.6         | 0.4         |
| Q6P6J9   | Txndc15             | Thioredoxin domain-containing protei     | -0.0632302 | 0.277798 | -0.22761 | 8 | 0.825657 | 0.44        | 0.44        |
| Q6P7W0   | Senp6 Kiaa0797 Su   | Sentrin-specific protease 6 (EC 3.4.22   | -0.0364684 | 0.426087 | -0.08559 | 1 | 0.945645 | 0.7         | 0           |
| Q6P8I4   | Pcnp                | PEST proteolytic signal-containing nuc   | 0.4859784  | 0.389416 | 1.24797  | 8 | 0.247331 | 0.114285714 | 0.114285714 |
| Q6P8J7   | Ckmt2               | Creatine kinase S-type, mitochondrial    | 0.1857743  | 0.306187 | 0.60674  | 8 | 0.560846 | 0           | 0           |
| Q6P8X1   | Snx6                | Sorting nexin-6 [Cleaved into: Sorting   | 0.1079832  | 0.125066 | 0.86341  | 8 | 0.413046 | 0.242857143 | 0.242857143 |
| Q6P9L6   | Kif15 Klp2 Kns17    | Kinesin-like protein KIF15 (Kinesin-like | 0.0925699  | 0.160592 | 0.57643  | 8 | 0.580177 | 0.446341463 | 0.446341463 |
| Q6P9P6   | Kif11               | Kinesin-like protein KIF11 (Kinesin-rela | 0.1709327  | 0.167565 | 1.0201   | 8 | 0.337536 | 0.369565217 | 0.369565217 |
| Q6P9Q6   | Fkbp15 Fkbp133 Ki   | FK506-binding protein 15 (FKBP-15) (     | -0.6071592 | 0.376418 | -1.61299 | 8 | 0.145411 | 0.54        | 0.54        |
| Q6P9R2   | Oxsr1 Osr1          | Serine/threonine-protein kinase OSR1     | 0.0750621  | 0.090436 | 0.83     | 8 | 0.430609 | 0.222222222 | 0.222222222 |
| Q6P9R4   | Arhgef18 Kiaa0521   | Rho guanine nucleotide exchange fact     | -0.0334013 | 0.315591 | -0.10584 | 4 | 0.920807 | 0.6         | 0.2         |
| Q6P9S0   | Mtss2 Mtss1l        | Protein MTSS 2 (MTSS1-like protein)      | -0.7592361 | 0.489509 | -1.55102 | 5 | 0.181595 | 0.3         | 0           |
| Q6P9Z1   | Smarcd3 Baf60c      | SWI/SNF-related matrix-associated acti   | -0.1211815 | 0.243559 | -0.49754 | 8 | 0.632191 | 0.288888889 | 0.288888889 |
| Q6PA06   | Atl2 Arl6ip2        | Atlastin-2 (EC 3.6.5.-) (ADP-ribosylatic | -0.8243837 | 1.640725 | -0.50245 | 3 | 0.649914 | 0.5         | 0           |
| Q6PAJ1   | Bcr Kiaa3017        | Breakpoint cluster region protein (EC 2  | -0.1003061 | 0.298632 | -0.33589 | 8 | 0.745597 | 0.6         | 0.6         |
| Q6PAM1   | Txlna Txln          | Alpha-taxilin                            | 0.2488647  | 0.222079 | 1.12061  | 8 | 0.294962 | 0.35        | 0.35        |
| Q6PAQ4   | Rexo4 Gm111 Pmc2    | RNA exonuclease 4 (EC 3.1.-.-) (Exonu    | 0.326994   | 0.215633 | 1.51644  | 8 | 0.167881 | 0.575       | 0.575       |
| Q6PAR0   | Klhdc10 Kiaa0265    | Kelch domain-containing protein 10       | -0.1315717 | 0.727387 | -0.18088 | 1 | 0.886078 | 0.7         | 0           |
| Q6PAR5   | Gapvd1 Gapex5 Kia   | GTPase-activating protein and VPS9 do    | -0.0637598 | 0.29651  | -0.21503 | 8 | 0.835121 | 0.4         | 0.4         |
| Q6PAV2   | Herc4               | Probable E3 ubiquitin-protein ligase H   | -0.4798013 | 0.276061 | -1.73803 | 8 | 0.120405 | 0.46        | 0.46        |
| Q6PB44   | Ptpn23 Kiaa1471     | Tyrosine-protein phosphatase non-rec     | 0.2847078  | 0.292989 | 0.97174  | 8 | 0.359642 | 0.525       | 0.525       |
| Q6PB52   | Lrpap1              | Lrpap1 protein                           | -0.1883004 | 0.166188 | -1.13305 | 8 | 0.290005 | 0.422222222 | 0.422222222 |
| Q6PB66   | Lrpprc Lrp130       | Leucine-rich PPR motif-containing pro    | -0.1861911 | 0.114587 | -1.62489 | 8 | 0.14284  | 0.360714286 | 0.360714286 |
| Q6PCM1   | Kdm3a Jhdm2a Jmjc   | Lysine-specific demethylase 3A (EC 1.1   | 0.0160123  | 0.331321 | 0.04833  | 8 | 0.962639 | 0.6         | 0.6         |
| Q6PCM2   | Ints6 Dbi1 Ddx26    | Integrator complex subunit 6 (Int6) (D   | 0.1348327  | 0.203601 | 0.66224  | 4 | 0.544025 | 0.666666667 | 0.266666667 |
| Q6PCP5   | Mff                 | Mitochondrial fission factor             | 0.6606824  | 0.418547 | 1.57852  | 8 | 0.1531   | 0.466666667 | 0.466666667 |
| Q6PCX7-2 | Rgma                | Repulsive guidance molecule A (RGM d     | 0.4257589  | 0.656161 | 0.64886  | 7 | 0.537125 | 0.475       | 0.375       |
| Q6PD19   | Armh3               | Armadillo-like helical domain-containin  | -0.1822719 | 0.422366 | -0.43155 | 5 | 0.684043 | 0.6         | 0.3         |
| Q6PD21   | Shb                 | SH2 domain-containing adapter protei     | -1.0774456 | 0.354362 | -3.04052 | 1 | 0.202284 | 0.7         | 0           |
| Q6PD29   | Znf513 Zfp513       | Zinc finger protein 513                  | -0.5473529 | 0.748025 | -0.73173 | 1 | 0.597844 | 0.7         | 0           |
| Q6PDH0   | Phldb1 Kiaa0638 LL  | Pleckstrin homology-like domain famili   | 0.6742728  | 0.389779 | 1.72989  | 3 | 0.182089 | 0.7         | 0.2         |
| Q6PDI5   | Ecpas Ecm29 Kiaa0   | Proteasome adapter and scaffold prot     | -0.1484307 | 0.237817 | -0.62414 | 8 | 0.549917 | 0.407142857 | 0.407142857 |

|        |                     |                                           |            |          |          |   |          |             |             |
|--------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6PDI6 | Mindy2 Fam63b Kiaa  | Ubiquitin carboxyl-terminal hydrolase     | 0.0717651  | 0.340633 | 0.21068  | 3 | 0.846635 | 0.5         | 0           |
| Q6PDJ1 | Cachd1 Kiaa1573 V   | VWFA and cache domain-containing pr       | -0.5960128 | 0.394012 | -1.51268 | 1 | 0.371865 | 0.7         | 0           |
| O08677 | Kng1 Kng            | Kininogen-1 [Cleaved into: Kininogen-1    | 0.4181414  | 0.139099 | 3.00607  | 6 | 0.023821 | 0.68        | 0.48        |
| Q6PDL0 | Dync1li2 Dncli2 Dnc | Cytoplasmic dynein 1 light intermediat    | 0.2570544  | 0.15732  | 1.63396  | 8 | 0.140909 | 0.3         | 0.3         |
| Q6PDM1 | Msl1 Msl1l1         | Male-specific lethal 1 homolog (MSL-1)    | -0.2886925 | 0.264893 | -1.08985 | 8 | 0.307517 | 0.425       | 0.425       |
| Q6PDM2 | Srsf1 Sfrs1         | Serine/arginine-rich splicing factor 1 (A | -0.0592969 | 0.093145 | -0.63661 | 8 | 0.542161 | 0.134782609 | 0.134782609 |
| Q6PDQ2 | Chd4                | Chromodomain-helicase-DNA-binding         | -0.1525021 | 0.228791 | -0.66656 | 8 | 0.523809 | 0.36091954  | 0.36091954  |
| Q6PDS3 | Sarm1 Kiaa0524      | NAD(+) hydrolase SARM1 (NADase SAI        | 0.232077   | 0.232673 | 0.99744  | 8 | 0.347761 | 0.542857143 | 0.542857143 |
| Q6PDX6 | Rnf220              | E3 ubiquitin-protein ligase Rnf220 (EC    | -0.3046894 | 0.503218 | -0.60548 | 2 | 0.606416 | 0.6         | 0           |
| Q6PDY2 | Ado Gm237           | 2-aminoethanethiol dioxxygenase (EC 1     | 0.2922861  | 0.169767 | 1.72169  | 8 | 0.123428 | 0.46        | 0.46        |
| Q6PE01 | Snrrnp40 Wdr57      | U5 small nuclear ribonucleoprotein 40     | 0.0694055  | 0.066524 | 1.04331  | 8 | 0.327303 | 0.160714286 | 0.160714286 |
| P59235 | Nup43               | Nucleoporin Nup43 (Nup107-160 sub         | 0.4096148  | 0.175181 | 2.33824  | 8 | 0.047546 | 0.475       | 0.475       |
| Q6PEB6 | Mob4 Mob3 Mobkl3    | MOB-like protein phocein (Class II mM     | 0.5992237  | 0.353992 | 1.69276  | 8 | 0.128958 | 0.328571429 | 0.328571429 |
| Q6PER5 | Them7 0610012H0     | Thioesterase domain-containing protei     | -0.5049996 | 0.167798 | -3.00957 | 1 | 0.204225 | 0.7         | 0           |
| Q6PEV3 | Wipf2 Wire          | WAS/WASL-interacting protein family r     | 0.211215   | 0.458693 | 0.46047  | 6 | 0.661394 | 0.5         | 0.3         |
| Q6PF93 | Pik3c3 Vps34        | Phosphatidylinositol 3-kinase catalytic   | 0.5174042  | 0.842093 | 0.61443  | 5 | 0.565813 | 0.533333333 | 0.233333333 |
| Q6PFE7 | Tmeff1              | Tomoregulin-1 (TR-1) (M7365) (Transn      | 0.0932199  | 0.317423 | 0.29368  | 8 | 0.776479 | 0.4         | 0.4         |
| Q6PFG2 | Tle1                | Transducin-like enhancer of split 1, ho   | 0.091424   | 0.174985 | 0.52247  | 8 | 0.6155   | 0.45        | 0.45        |
| Q6PGB6 | Naa50 Mak3 Nat13    | N-alpha-acetyltransferase 50 (EC 2.3.1    | 0.406617   | 0.318917 | 1.27499  | 8 | 0.238092 | 0.393333333 | 0.393333333 |
| Q6PGC1 | Dhx29               | ATP-dependent RNA helicase DHX29 (I       | 0.2004634  | 0.298786 | 0.67093  | 8 | 0.521163 | 0.466666667 | 0.466666667 |
| Q6PGF3 | Med16 Thrap5        | Mediator of RNA polymerase II transcrip   | -0.2258608 | 0.301547 | -0.74901 | 7 | 0.478261 | 0.1         | 0           |
| Q6PGF7 | Exoc8               | Exocyst complex component 8 (Exocy        | 0.4210823  | 0.504608 | 0.83447  | 8 | 0.428227 | 0.5         | 0.5         |
| Q6PGG2 | Gmip                | GEM-interacting protein (GMIP)            | 0.2423426  | 0.30078  | 0.80571  | 2 | 0.504977 | 0.6         | 0           |
| Q6PGG6 | Gnl3l               | Guanine nucleotide-binding protein-li     | 0.2614253  | 0.313055 | 0.83508  | 8 | 0.427906 | 0.55        | 0.55        |
| Q91VI7 | Rnh1 Rnh            | Ribonuclease inhibitor (Ribonuclease/i    | 0.4052938  | 0.151672 | 2.67218  | 8 | 0.028267 | 0.323333333 | 0.323333333 |
| Q6PGH1 | Bud31               | Protein BUD31 homolog (Protein G10        | 0.1151096  | 0.193064 | 0.59623  | 8 | 0.567508 | 0.3         | 0.3         |
| Q6PGH2 | Jpt2 D17Ertd441e f  | Jupiter microtubule associated homolo     | 0.0697413  | 0.097052 | 0.7186   | 8 | 0.49284  | 0.18        | 0.18        |
| Q6PGL7 | Washc2 D6Wsu116     | WASH complex subunit 2                    | -0.0334027 | 0.296523 | -0.11265 | 8 | 0.913085 | 0.483333333 | 0.483333333 |
| Q6PGN3 | Dclk2 Dcamkl2       | Serine/threonine-protein kinase DCLK:     | 0.46218    | 0.310138 | 1.49024  | 8 | 0.174494 | 0.46        | 0.46        |
| Q6PHN9 | Rab35               | Ras-related protein Rab-35                | -0.2313407 | 0.303783 | -0.76153 | 8 | 0.468192 | 0.35        | 0.35        |
| Q6PHQ8 | Naa35 Egap Mak10    | N-alpha-acetyltransferase 35, NatC au     | -0.4445798 | 0.261441 | -1.7005  | 8 | 0.127457 | 0.48        | 0.48        |
| Q6PHQ9 | Pabpc4              | Polyadenylate-binding protein (PABP)      | 0.2390458  | 0.24621  | 0.9709   | 8 | 0.360033 | 0.338461538 | 0.338461538 |
| Q6PHU5 | Sort1               | Sortilin (Neurotensin receptor 3) (NTR    | 0.0659353  | 0.185342 | 0.35575  | 8 | 0.731227 | 0.557142857 | 0.557142857 |
| Q6PHZ5 | Rbm15b              | Putative RNA-binding protein 15B (RN      | 0.2270168  | 0.23087  | 0.98331  | 8 | 0.354255 | 0.475       | 0.475       |
| Q6PIC6 | Atp1a3              | Sodium/potassium-transporting ATPa:       | 0.3621069  | 0.352004 | 1.0287   | 8 | 0.333715 | 0.355555556 | 0.355555556 |
| Q6PIJ4 | Nfrkb               | Nuclear factor related to kappa-B-bind    | 0.3872474  | 0.143719 | 2.69448  | 3 | 0.074132 | 0.5         | 0           |
| Q6PIP5 | Nudcd1              | NudC domain-containing protein 1          | -0.1066435 | 0.163755 | -0.65124 | 8 | 0.533149 | 0.438461538 | 0.438461538 |
| Q6PR54 | Rif1                | Telomere-associated protein RIF1 (Rap     | 0.2708714  | 0.415736 | 0.65155  | 8 | 0.53296  | 0.5         | 0.5         |

|          |                     |                                         |            |          |          |   |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6Q783   | Kmt5c Suv420h2      | Histone-lysine N-methyltransferase KM   | -0.0637617 | 0.474036 | -0.13451 | 2 | 0.905316 | 0.6         | 0           |
| Q6QI06   | Rictor Kiaa1999     | Rapamycin-insensitive companion of m    | 0.463993   | 0.428051 | 1.08397  | 5 | 0.327859 | 0.55        | 0.25        |
| Q6R891   | Ppp1r9b             | Neurabin-2 (Neurabin-II) (Protein pho   | 0.2932862  | 0.140562 | 2.08653  | 8 | 0.070397 | 0.241666667 | 0.241666667 |
| Q6RHR9   | Magi1 Baiap1 Bap1   | Membrane-associated guanylate kinase    | 0.1890727  | 0.242127 | 0.78088  | 8 | 0.457355 | 0.483333333 | 0.483333333 |
| Q6RT24   | Cenpe               | Centromere-associated protein E (Cen    | 0.1338452  | 0.117609 | 1.13805  | 7 | 0.292546 | 0.4         | 0.3         |
| Q6RUT7   | Uqcc4 Ccsmst1       | Ubiquinol-cytochrome c reductase cor    | 0.1022243  | 0.193632 | 0.52793  | 4 | 0.625477 | 0.4         | 0           |
| Q6TDG6   | Hprt1 Hprt          | Hypoxanthine-guanine phosphoribosy      | -0.1858956 | 0.107098 | -1.73575 | 4 | 0.157619 | 0.4         | 0           |
| Q6VGS5   | Ccdc88c Daple       | Protein Daple (Coiled-coil domain-con   | -1.4210208 | 0.925263 | -1.5358  | 1 | 0.367435 | 0.7         | 0           |
| Q6VN19   | Ranbp10 Kiaa1464    | Ran-binding protein 10 (RanBP10)        | -0.1778059 | 0.239229 | -0.74325 | 7 | 0.481527 | 0.54        | 0.44        |
| Q6VWG3   | Kctd12 Pfet1        | BTB/POZ domain-containing protein Ki    | -0.0461542 | 0.275846 | -0.16732 | 7 | 0.87185  | 0.35        | 0.25        |
| Q6XLQ8   | Calu                | Calumenin                               | 0.0713988  | 0.155131 | 0.46025  | 8 | 0.657589 | 0.1         | 0.1         |
| Q6Y7W8   | Gigyf2 Kiaa0642 Per | GRB10-interacting GYF protein 2 (PER    | -0.2559012 | 0.153689 | -1.66506 | 8 | 0.134466 | 0.444444444 | 0.444444444 |
| Q6ZPJ3   | Ube2o Kiaa1734      | (E3-independent) E2 ubiquitin-conjug    | -0.094012  | 0.089985 | -1.04475 | 8 | 0.326677 | 0.343478261 | 0.343478261 |
| Q6ZPK0   | Phf21a Bhc80 Kiaa1  | PHD finger protein 21A (BHC80a) (BR     | -0.1170622 | 0.165536 | -0.70717 | 8 | 0.499538 | 0.575       | 0.575       |
| Q6ZPR5   | Smpd4 Kiaa1418      | Sphingomyelin phosphodiesterase 4 (I    | -0.3033698 | 0.35366  | -0.8578  | 8 | 0.41596  | 0.3875      | 0.3875      |
| Q6ZPT1   | Klhl9 Kiaa1354      | Kelch-like protein 9                    | 0.5872983  | 0.50394  | 1.16541  | 7 | 0.282023 | 0.575       | 0.475       |
| Q6ZPU9   | Kifbp Kbp Kiaa1279  | KIF-binding protein (KIF1-binding prot  | -0.1294429 | 0.387869 | -0.33373 | 8 | 0.747164 | 0.5         | 0.5         |
| Q9Z0H8   | Clip2 Cyln2 Kiaa029 | CAP-Gly domain-containing linker prot   | 0.4026038  | 0.174079 | 2.31276  | 8 | 0.049475 | 0.437037037 | 0.437037037 |
| Q6ZPY7   | Kdm3b Jhdm2b Jmj    | Lysine-specific demethylase 3B (EC 1.1  | -0.1720674 | 0.243528 | -0.70656 | 8 | 0.499897 | 0.488461538 | 0.488461538 |
| Q6ZQ03   | Fnbp4 Fbp30 Kiaa16  | Formin-binding protein 4 (Formin-binc   | 0.0598257  | 0.145014 | 0.41255  | 8 | 0.69077  | 0.5375      | 0.5375      |
| Q6ZQ08   | Cnot1 Kiaa1007      | CCR4-NOT transcription complex subu     | -0.6653383 | 0.394192 | -1.68785 | 7 | 0.135296 | 0.1         | 0           |
| Q6ZQ29-2 | Taok2 Kiaa0881      | Serine/threonine-protein kinase TAO2    | 0.4147585  | 0.351721 | 1.17923  | 7 | 0.276831 | 0.525       | 0.425       |
| Q6ZQ38   | Cand1 D10ErtD516    | Cullin-associated NEDD8-dissociated     | -0.0953786 | 0.13664  | -0.69803 | 8 | 0.504938 | 0.298571429 | 0.298571429 |
| Q6ZQ58   | Larp1 Kiaa0731 Lar  | La-related protein 1 (La ribonucleopro  | -0.0597023 | 0.152067 | -0.39261 | 8 | 0.704865 | 0.305263158 | 0.305263158 |
| Q6ZQ68   | mKIAA0687           | non-specific serine/threonine protein I | -0.2154847 | 0.38863  | -0.55447 | 6 | 0.599298 | 0.433333333 | 0.233333333 |
| Q6ZQ73   | Cand2 Kiaa0667 Tip  | Cullin-associated NEDD8-dissociated     | -0.1105335 | 0.169173 | -0.65338 | 8 | 0.53184  | 0.353333333 | 0.353333333 |
| Q6ZQ88   | Kdm1a Aof2 Kiaa06   | Lysine-specific histone demethylase 1/  | -0.0934712 | 0.096001 | -0.97365 | 8 | 0.358748 | 0.305263158 | 0.305263158 |
| Q6ZQB6   | Ppip5k2 Hisppd1 Ki  | Inositol hexakisphosphate and diphos    | 0.4533522  | 0.26193  | 1.73082  | 5 | 0.14404  | 0.566666667 | 0.266666667 |
| Q6ZQF0   | Topbp1 Kiaa0259     | DNA topoisomerase 2-binding protein     | -0.531822  | 0.326229 | -1.63021 | 6 | 0.154179 | 0.633333333 | 0.433333333 |
| Q6ZQH8   | Nup188 Kiaa0169     | Nucleoporin NUP188                      | 0.0394509  | 0.083375 | 0.47317  | 3 | 0.668388 | 0.65        | 0.15        |
| Q6ZQI3   | Mlec Kiaa0152       | Malectin                                | 0.066533   | 0.181209 | 0.36716  | 8 | 0.723021 | 0.3125      | 0.3125      |
| Q6ZQK0   | Ncapd3 Kiaa0056     | Condensin-2 complex subunit D3 (No      | 0.0219042  | 0.174321 | 0.12565  | 3 | 0.907954 | 0.5         | 0           |
| Q6ZQK5   | Acap2 Centb2 KiaaC  | Arf-GAP with coiled-coil, ANK repeat ar | -0.1469489 | 0.418211 | -0.35138 | 5 | 0.739629 | 0.6         | 0.3         |
| Q6ZQL4   | Wdr43 Kiaa0007      | WD repeat-containing protein 43         | -0.4572998 | 0.340099 | -1.34461 | 8 | 0.215628 | 0.47        | 0.47        |
| Q6ZWM4   | Lsm8                | U6 snRNA-associated Sm-like protein I   | -0.5368517 | 0.668476 | -0.8031  | 8 | 0.445121 | 0.42        | 0.42        |
| Q6ZWN5   | Rps9                | Small ribosomal subunit protein uS4 (   | 0.427826   | 0.767462 | 0.55746  | 8 | 0.592467 | 0.371428571 | 0.371428571 |
| Q6ZWQ0   | Syne2               | Nesprin-2 (KASH domain-containing p     | -0.1656569 | 0.375266 | -0.44144 | 8 | 0.670584 | 0.459677419 | 0.459677419 |
| Q6ZWQ7   | Spcc3               | Signal peptidase complex subunit 3 (M   | -0.3479387 | 0.226696 | -1.53482 | 8 | 0.163374 | 0.3         | 0.3         |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q6ZWQ9   | My12a 2900073G1     | Myosin, light chain 12A, regulatory, noi | 0.5133599  | 0.38272  | 1.34134  | 8 | 0.216639 | 0.2         | 0.2         |
| Q6ZWR6   | Syne1               | Nesprin-1 (Enaptin) (KASH domain-co      | -2.3485751 | 0.877049 | -2.67781 | 1 | 0.227529 | 0.7         | 0           |
| Q6ZWS7   | Camk2g              | calcium/calmodulin-dependent protei      | 0.0166326  | 0.262148 | 0.06345  | 8 | 0.950967 | 0.26        | 0.26        |
| Q6ZWU9   | Rps27               | Small ribosomal subunit protein eS27     | 0.2667168  | 0.60163  | 0.44332  | 8 | 0.669276 | 0.116666667 | 0.116666667 |
| Q6ZWW3   | Rpl10 Qm            | Large ribosomal subunit protein uL16     | 0.1018777  | 0.421198 | 0.24188  | 8 | 0.814961 | 0.177777778 | 0.177777778 |
| Q6ZWW7   | Rpl35               | Large ribosomal subunit protein uL29     | -0.0163637 | 0.374294 | -0.04372 | 8 | 0.9662   | 0.12        | 0.12        |
| Q6ZWX6   | Eif2s1 Eif2a        | Eukaryotic translation initiation factor | 0.2072033  | 0.315551 | 0.65664  | 8 | 0.529844 | 0.265       | 0.265       |
| Q6ZWY3   | Rps27l              | Small ribosomal subunit protein eS27-    | -0.0983773 | 0.413062 | -0.23817 | 8 | 0.817739 | 0.25        | 0.25        |
| Q6ZWY8   | Tmsb10 Ptmb10       | Thymosin beta-10                         | -0.3032763 | 0.624548 | -0.48559 | 8 | 0.640275 | 0           | 0           |
| Q6ZWZ2   | Ube2r2 Cdc34b Ub    | Ubiquitin-conjugating enzyme E2 R2 (I    | 0.3660949  | 0.176095 | 2.07896  | 8 | 0.071231 | 0.366666667 | 0.366666667 |
| Q70FJ1   | Akap9 Kiaa0803      | A-kinase anchor protein 9 (AKAP-9) (P    | 0.0954201  | 0.25071  | 0.3806   | 8 | 0.713408 | 0.540740741 | 0.540740741 |
| Q71FD5   | Znrf2               | E3 ubiquitin-protein ligase ZNRF2 (EC    | 0.1821841  | 0.084825 | 2.14776  | 1 | 0.277408 | 0.7         | 0           |
| Q71LX4   | Tln2                | Talin-2                                  | 0.0663663  | 0.306725 | 0.21637  | 8 | 0.834114 | 0.614285714 | 0.614285714 |
| Q76KJ5   | Polr1g Ase1 Cd3eap  | DNA-directed RNA polymerase I subun      | 0.0361611  | 0.719224 | 0.05028  | 5 | 0.961848 | 0.65        | 0.35        |
| Q76LS9   | Mindy1 Fam63a Ni    | Ubiquitin carboxyl-terminal hydrolase    | -0.3194759 | 0.18571  | -1.7203  | 7 | 0.129061 | 0.4         | 0.3         |
| Q76MZ3   | Ppp2r1a             | Serine/threonine-protein phosphatase     | 0.3716861  | 0.340857 | 1.09045  | 8 | 0.307268 | 0.134146341 | 0.134146341 |
| Q78HU3   | Mvb12a Fam125a      | Multivesicular body subunit 12A (ESCI    | -0.2925172 | 0.151311 | -1.93322 | 6 | 0.10139  | 0.45        | 0.25        |
| Q78IK4   | Apool Fam121a Mic   | MICOS complex subunit Mic27 (Apolip      | 0.1373683  | 0.261192 | 0.52593  | 8 | 0.613201 | 0.35        | 0.35        |
| Q78JE5   | Fbxo22 Fbx22        | F-box only protein 22                    | -0.140193  | 0.347597 | -0.40332 | 8 | 0.697278 | 0.48        | 0.48        |
| Q78JW9   | Ubf1d1 D7Wsu128e    | Ubiquitin domain-containing protein L    | 0.3057156  | 0.38673  | 0.79052  | 8 | 0.452022 | 0.3625      | 0.3625      |
| Q78PG9   | Ccdc25              | Coiled-coil domain-containing protein    | 0.0338659  | 0.187241 | 0.18087  | 8 | 0.860969 | 0.35        | 0.35        |
| Q78PY7   | Snd1                | Staphylococcal nuclease domain-conti     | 0.0476548  | 0.093555 | 0.50938  | 8 | 0.624237 | 0.304545455 | 0.304545455 |
| Q78XF5   | Ostc                | Oligosaccharyltransferase complex sub    | -0.4967336 | 0.494913 | -1.00368 | 8 | 0.344922 | 0           | 0           |
| Q78YZ6-3 | Scoc Scoco          | Short coiled-coil protein                | 0.5387761  | 0.936729 | 0.57517  | 8 | 0.58099  | 0           | 0           |
| Q3U6N9   |                     | UPF0488 protein C8orf33 homolog          | 0.3967855  | 0.091254 | 4.34815  | 3 | 0.022464 | 0.5         | 0           |
| Q78ZM0   | Snx3                | Sorting nexin-3                          | 0.2778523  | 0.213902 | 1.29897  | 8 | 0.23014  | 0.242857143 | 0.242857143 |
| Q791T5   | Mtch1               | Mitochondrial carrier homolog 1 (Mitoc   | 0.5230227  | 0.442447 | 1.18211  | 8 | 0.271102 | 0.416666667 | 0.416666667 |
| Q791V5   | Mtch2 Mimp          | Mitochondrial carrier homolog 2 (Met-i   | -0.1982    | 0.217857 | -0.90977 | 8 | 0.389529 | 0.181818182 | 0.181818182 |
| Q792Z1   | Try10 Tcrb-V20 tryp | trypsin (EC 3.4.21.4)                    | 0.423966   | 0.800776 | 0.52944  | 8 | 0.61087  | 0.54        | 0.54        |
| Q7GIP5   | mt-Nd3 mt-ND3 NC    | NADH-ubiquinone oxidoreductase cha       | -0.6714725 | 0.822075 | -0.8168  | 2 | 0.49986  | 0.6         | 0           |
| Q7JJ13   | Brd2 Fsr1 Kiaa400   | Bromodomain-containing protein 2 (F      | 0.0375443  | 0.185093 | 0.20284  | 8 | 0.844324 | 0.330769231 | 0.330769231 |
| Q7M6W1   | Rtn1                | Reticulon                                | 0.5454891  | 0.521048 | 1.04691  | 5 | 0.343089 | 0.466666667 | 0.166666667 |
| Q7M6Y2   | Sox11 Sox-11        | Transcription factor SOX-11              | 0.1104047  | 0.163121 | 0.67683  | 8 | 0.517604 | 0.3         | 0.3         |
| Q7M6Y3   | Picalm Calm Fit1    | Phosphatidylinositol-binding clathrin    | 0.3042382  | 0.464613 | 0.65482  | 2 | 0.579827 | 0.6         | 0           |
| Q7M702   | Klc1 Kns2           | Kinesin light chain                      | 0.3933597  | 0.204073 | 1.92754  | 6 | 0.102192 | 0.55        | 0.35        |
| Q7M739   | Tpr                 | Nucleoprotein TPR                        | 0.1633186  | 0.132348 | 1.23401  | 8 | 0.252219 | 0.343434343 | 0.343434343 |
| Q7M753   | Pank2               | Pantothenate kinase 2, mitochondrial     | -0.0746391 | 0.459922 | -0.16229 | 4 | 0.878948 | 0.55        | 0.15        |
| Q7SIG6   | Asap2 Ddef2 Gm15    | Arf-GAP with SH3 domain, ANK repeat      | 0.1583688  | 0.410883 | 0.38544  | 8 | 0.709961 | 0.46        | 0.46        |

|          |                       |                                           |            |          |          |   |          |             |             |
|----------|-----------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q7TMB8   | Cyfp1 Kiaa0068 Sh     | Cytoplasmic FMR1-interacting protein      | 0.3622322  | 0.37447  | 0.96732  | 8 | 0.361714 | 0.457142857 | 0.457142857 |
| Q7TMC8   | Fcsk Fuk              | L-fucose kinase (Fucokinase) (EC 2.7.1    | -0.591343  | 0.524576 | -1.12728 | 3 | 0.341645 | 0.5         | 0           |
| Q7TME2   | Spag5                 | Sperm-associated antigen 5 (Mastrin) (    | 0.2109894  | 1.09081  | 0.19342  | 3 | 0.858982 | 0.7         | 0.2         |
| Q7TMF3   | Ndufa12               | NADH dehydrogenase [ubiquinone] 1         | 0.3302021  | 0.257642 | 1.28163  | 8 | 0.235868 | 0.3625      | 0.3625      |
| Q7TMI3   | Uhrf2 Nirf            | E3 ubiquitin-protein ligase UHRF2 (EC     | -0.1310627 | 0.390451 | -0.33567 | 7 | 0.746956 | 0.575       | 0.475       |
| Q99LP6   | Grpel1                | GrpE protein homolog 1, mitochondri       | 0.3846011  | 0.165262 | 2.32722  | 8 | 0.048371 | 0.3         | 0.3         |
| Q7TMM9   | Tubb2a Tubb2          | Tubulin beta-2A chain                     | -0.0421876 | 0.296183 | -0.14244 | 8 | 0.890256 | 0           | 0           |
| Q7TMR0   | Prpcp                 | Lysosomal Pro-X carboxypeptidase (EC      | 0.3678854  | 0.677964 | 0.54263  | 7 | 0.604221 | 0.233333333 | 0.133333333 |
| Q7TMY4   | Thoc7 Nif3l1bp1       | THO complex subunit 7 homolog (Ngg        | 0.2333133  | 0.657539 | 0.35483  | 7 | 0.733168 | 0.1         | 0           |
| Q7TMY8   | Huwe1 Kiaa0312 Ur     | E3 ubiquitin-protein ligase HUWE1 (EC     | -0.2608451 | 0.271429 | -0.96101 | 8 | 0.364691 | 0.428169014 | 0.428169014 |
| Q7TN29   | Smap2 Smap1l          | Stromal membrane-associated protein       | 0.2059271  | 0.458567 | 0.44907  | 8 | 0.6653   | 0.416666667 | 0.416666667 |
| Q7TN74   | Ppp1r9a Neurabin      | Neurabin I (Neural tissue-specific F-act  | 0.7092342  | 0.678936 | 1.04463  | 7 | 0.330922 | 0.466666667 | 0.366666667 |
| Q7TNC4   | Luc7l2                | Putative RNA-binding protein Luc7-like    | 0.1473481  | 0.142909 | 1.03106  | 8 | 0.332673 | 0.242857143 | 0.242857143 |
| Q62425   | Ndufa4                | Cytochrome c oxidase subunit NDUFA        | 0.381669   | 0.116107 | 3.28723  | 8 | 0.011068 | 0.3         | 0.3         |
| Q7TNF4   | Klc1 Kns2             | Kinesin light chain                       | 0.1933134  | 0.082331 | 2.34802  | 3 | 0.100487 | 0.6         | 0.1         |
| Q7TNL5   | Ppp2r5d               | Serine/threonine-protein phosphatase      | 0.039062   | 0.201347 | 0.194    | 8 | 0.851009 | 0.282608696 | 0.282608696 |
| P70122   | Sbds                  | Ribosome maturation protein SBDS (P       | 0.3793536  | 0.144444 | 2.6263   | 8 | 0.030352 | 0.42        | 0.42        |
| Q7TNV0   | Dek                   | Protein DEK                               | 0.0156199  | 0.21129  | 0.07393  | 8 | 0.942884 | 0.222222222 | 0.222222222 |
| Q7TPB0   | Plppr3 Kiaa4076 Lp    | Phospholipid phosphatase-related prc      | 0.2738998  | 0.33502  | 0.81756  | 7 | 0.440543 | 0.4         | 0.3         |
| Q7TPD0   | Ints3                 | Integrator complex subunit 3 (Int3) (S    | -0.1363496 | 0.277251 | -0.49179 | 8 | 0.636076 | 0.328571429 | 0.328571429 |
| Q7TPD3   | Robo2 Kiaa1568        | Roundabout homolog 2                      | 0.1566363  | 0.334328 | 0.46851  | 8 | 0.65192  | 0.475       | 0.475       |
| P50396   | Gdi1 Rabgdia          | Rab GDP dissociation inhibitor alpha (    | 0.377636   | 0.153657 | 2.45766  | 8 | 0.039463 | 0.244117647 | 0.244117647 |
| Q80W68   | Kirrel1 Kirrel Neph1  | Kin of IRRE-like protein 1 (Kin of irregu | 0.3700728  | 0.115763 | 3.19681  | 3 | 0.049452 | 0.65        | 0.15        |
| Q7TPM6   | Fsd1                  | Fibronectin type III and SPRY domain-c    | 0.3465832  | 0.167549 | 2.06854  | 8 | 0.072393 | 0.516666667 | 0.516666667 |
| Q7TPR4   | Actn1                 | Alpha-actinin-1 (Alpha-actinin cytoske    | -0.1346751 | 0.120147 | -1.12092 | 8 | 0.29484  | 0.296666667 | 0.296666667 |
| Q7TPS7   | Nfyc                  | Nuclear transcription factor Y subunit    | -0.1034504 | 0.231061 | -0.44772 | 8 | 0.666232 | 0.15        | 0.15        |
| Q7TPV2   | Dzip3 Kiaa0675        | E3 ubiquitin-protein ligase DZIP3 (EC :   | 0.1939552  | 0.181929 | 1.0661   | 7 | 0.321761 | 0.5         | 0.4         |
| Q7TPV4   | Mybbp1a P160          | Myb-binding protein 1A (Myb-binding p     | -0.1257402 | 0.150088 | -0.83778 | 8 | 0.426474 | 0.279710145 | 0.279710145 |
| Q7TQ95   | Ln timer Kiaa1715 Lnp | Endoplasmic reticulum junction forma      | 0.315268   | 0.246111 | 1.281    | 8 | 0.236078 | 0.45        | 0.45        |
| Q7TQF7   | Amph Amph1            | Amphiphysin                               | -0.2666913 | 0.31961  | -0.83443 | 6 | 0.435997 | 0.45        | 0.25        |
| Q7TQG1   | Plekha6 Pepp3         | Pleckstrin homology domain-containin      | 0.1014769  | 0.432359 | 0.23471  | 1 | 0.853238 | 0.7         | 0           |
| Q7TQH0-2 | Atxn2l A2lp           | Ataxin-2-like protein                     | 0.473112   | 0.328077 | 1.44208  | 8 | 0.18726  | 0.361702128 | 0.361702128 |
| Q7TQI3   | Otub1                 | Ubiquitin thioesterase OTUB1 (EC 3.4.     | 0.3506525  | 0.212586 | 1.64946  | 8 | 0.137662 | 0.1875      | 0.1875      |
| Q7TQK4   | Exosc3 Rrp40          | Exosome complex component RRP40           | 0.0162655  | 0.244532 | 0.06652  | 8 | 0.948599 | 0.24        | 0.24        |
| Q7TQK5   | Ccdc93                | Coiled-coil domain-containing protein     | 0.1896938  | 0.272592 | 0.69589  | 5 | 0.51751  | 0.65        | 0.35        |
| Q7TSC1   | Prcc2a Bat2           | Protein PRRC2A (HLA-B-associated tra      | 0.2036575  | 0.129255 | 1.57563  | 8 | 0.15376  | 0.339130435 | 0.339130435 |
| Q7TSG2   | Ctdp1 Fcp1            | RNA polymerase II subunit A C-termin      | -0.0485125 | 0.120105 | -0.40392 | 8 | 0.696856 | 0.3         | 0.3         |
| Q7TSH3   | Znf516 Kiaa0222 Zf    | Zinc finger protein 516                   | -0.9852908 | 0.945892 | -1.04165 | 1 | 0.487014 | 0.7         | 0           |

|          |                     |                                                       |            |          |          |   |          |             |             |
|----------|---------------------|-------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q7TSH4   | Ccp110 Cep110 C     | Centriolar coiled-coil protein of 110 kD              | 0.0404541  | 0.524354 | 0.07715  | 4 | 0.942209 | 0.5         | 0.1         |
| Q7TSH6-3 | Scaf4 Kiaa1172 Srsf | SR-related and CTD-associated factor 4                | -0.0930744 | 0.231265 | -0.40246 | 8 | 0.697886 | 0.375       | 0.375       |
| Q7TSI3   | Ppp6r1 Kiaa1115 Pj  | Serine/threonine-protein phosphatase                  | 0.2286159  | 0.433229 | 0.5277   | 8 | 0.612024 | 0.508333333 | 0.508333333 |
| Q7TSJ2   | Map6 Mtap6          | Microtubule-associated protein 6 (MAF)                | 0.1012014  | 0.279218 | 0.36245  | 8 | 0.726407 | 0.466666667 | 0.466666667 |
| Q7TSK2   | Sez6 Kiaa4158       | Seizure protein 6 (SEZ-6) (Brain-specific)            | 0.1415661  | 0.232333 | 0.60933  | 4 | 0.575221 | 0.4         | 0           |
| Q7TSS2   | Ube2q1 Ube2q        | Ubiquitin-conjugating enzyme E2 Q1 (UBC1)             | -0.2808677 | 0.437332 | -0.64223 | 8 | 0.538688 | 0.26        | 0.26        |
| Q7TSV4   | Pgm2 Pgm1           | Phosphopentomutase (EC 5.4.2.7) (GTPase)              | -0.0070099 | 0.110966 | -0.06317 | 8 | 0.95118  | 0.376923077 | 0.376923077 |
| Q7TSZ8   | Nacc1 Btd14b Nac    | Nucleus accumbens-associated protein 1                | 0.0530344  | 0.975774 | 0.05435  | 3 | 0.960072 | 0.65        | 0.15        |
| Q7TT18   | Atf7ip Mcaf1        | Activating transcription factor 7-interacting protein | 0.0605632  | 0.154002 | 0.39326  | 8 | 0.704399 | 0.393333333 | 0.393333333 |
| Q7TT37   | Elp1 Ikap Ikbkap    | Elongator complex protein 1 (ELP1) (Hsp70)            | -0.2650653 | 0.279163 | -0.9495  | 8 | 0.370165 | 0.3825      | 0.3825      |
| Q7TT50   | Cdc42bpb Kiaa1124   | Serine/threonine-protein kinase MRCK                  | -0.4111412 | 0.365023 | -1.12634 | 8 | 0.29267  | 0.433333333 | 0.433333333 |
| Q80SW1   | Ahcy1l Irbit        | S-adenosylhomocysteine hydrolase-like                 | -0.0406611 | 0.322773 | -0.12597 | 8 | 0.902861 | 0.45        | 0.45        |
| Q80SY4   | Mib1 Dip1 Kiaa1323  | E3 ubiquitin-protein ligase MIB1 (EC 2.3.2.27)        | -0.2375482 | 0.445346 | -0.5334  | 5 | 0.616605 | 0.666666667 | 0.366666667 |
| Q80SY5   | Prpf38b             | Pre-mRNA-splicing factor 38B                          | -0.3737411 | 0.213895 | -1.74731 | 8 | 0.118718 | 0.46        | 0.46        |
| Q80SY6   | Adal                | Adenosine deaminase-like protein (EC 3.5.4.15)        | -0.565851  | 0.691139 | -0.81872 | 3 | 0.472927 | 0.5         | 0           |
| Q80SZ7   | Gng5 Gngt5          | Guanine nucleotide-binding protein G12                | -0.1416639 | 0.329403 | -0.43006 | 8 | 0.6785   | 0.25        | 0.25        |
| Q80T69   | Rsnb1 Kiaa3002 Rsl  | Lysine-specific demethylase 9 (KDM9)                  | 0.4581067  | 0.410465 | 1.11607  | 8 | 0.296791 | 0.42        | 0.42        |
| Q80T85   | Dcaf5 Kiaa1824 Wd   | DDB1- and CUL4-associated factor 5 (DDB1)             | 0.5712325  | 0.253036 | 2.25751  | 7 | 0.058546 | 0.55        | 0.45        |
| O55125   | Nipsnap1            | Protein NipSnap homolog 1 (NipSnap)                   | 0.3683784  | 0.147043 | 2.50525  | 8 | 0.036641 | 0.31        | 0.31        |
| Q80TE0   | Rpap1 Kiaa1403      | RNA polymerase II-associated protein 1                | 0.0942974  | 0.50723  | 0.18591  | 8 | 0.857145 | 0.3         | 0.3         |
| O35218   | Cpsf2 Cpsf100 Mcp   | Cleavage and polyadenylation specificity factor 2     | 0.3664687  | 0.145586 | 2.5172   | 8 | 0.035965 | 0.314285714 | 0.314285714 |
| Q80TF3   | Pcdh19 Kiaa1313     | Protocadherin-19                                      | -0.3571219 | 0.212071 | -1.68398 | 5 | 0.153005 | 0.45        | 0.15        |
| Q80TJ1-2 | Cadps Caps Caps1    | Calcium-dependent secretion activator                 | -0.2437718 | 0.564839 | -0.43158 | 7 | 0.679029 | 0.55        | 0.45        |
| Q80TJ7   | Phf8 Kiaa1111       | Histone lysine demethylase PHF8 (EC 1.1.1.60)         | -0.4645328 | 0.408978 | -1.13584 | 1 | 0.459566 | 0.7         | 0           |
| Q80TL0   | Ppm1e Camkn Kiaa1   | Protein phosphatase 1E (EC 3.1.3.16)                  | -0.0477209 | 0.257024 | -0.18567 | 8 | 0.857327 | 0.525       | 0.525       |
| Q80TL7   | Mon2 Kiaa1040 Sf2   | Protein MON2 homolog (Protein SF21)                   | -0.2476275 | 0.317158 | -0.78077 | 4 | 0.478561 | 0.55        | 0.15        |
| Q80TM9   | Nisch Kiaa0975      | Nischarin (Imidazoline receptor 1) (I-1)              | 0.6003756  | 0.336748 | 1.78286  | 8 | 0.112459 | 0.446153846 | 0.446153846 |
| Q99PL6   | Ubxn6 Ubxd1 Ubxd    | UBX domain-containing protein 6 (UBX)                 | 0.3534474  | 0.139096 | 2.54103  | 8 | 0.034655 | 0.4375      | 0.4375      |
| Q80TS5   | Znf423 Ebfaz Kiaa0  | Zinc finger protein 423 (Early B-cell factor)         | 0.6835971  | 0.472899 | 1.44555  | 5 | 0.207931 | 0.65        | 0.35        |
| Q80TY0   | Fnbp1 Fbp17 Kiaa0   | Formin-binding protein 1 (Formin-binding)             | 0.0224387  | 0.188633 | 0.11895  | 2 | 0.916182 | 0.6         | 0           |
| Q80TY4   | St18 Kiaa0535       | Suppression of tumorigenicity 18 protein              | -0.113075  | 0.332699 | -0.33987 | 3 | 0.756357 | 0.5         | 0           |
| Q80TZ9   | Rere Atr2 Kiaa0458  | Arginine-glutamic acid dipeptide repeat               | -0.234384  | 0.466958 | -0.50194 | 2 | 0.665519 | 0.6         | 0           |
| Q80U04   | Pja2 Kiaa0438 Rnf1  | E3 ubiquitin-protein ligase Praja-2 (Praj-2)          | 0.7206198  | 0.54501  | 1.32221  | 8 | 0.222648 | 0.45        | 0.45        |
| Q80U28   | Madd Kiaa0358       | MAP kinase-activating death domain protein            | -0.6837011 | 2.011554 | -0.33989 | 1 | 0.79142  | 0.7         | 0           |
| Q80U35   | Arhgef17 Kiaa0337   | Rho guanine nucleotide exchange factor                | -0.3453812 | 0.344378 | -1.00291 | 3 | 0.3898   | 0.6         | 0.1         |
| Q80U51   | Spock2 mKIAA0275    | MKIAA0275 protein                                     | 3.5347968  | 0.383659 | 9.21338  | 1 | 0.068828 | 0.7         | 0           |
| Q80U56   | Avl9 Kiaa0241       | Late secretory pathway protein AVL9 homolog           | 0.261681   | 0.168386 | 1.55406  | 8 | 0.158778 | 0.575       | 0.575       |
| Q80U58-2 | Pum2 Kiaa0235       | Pumilio homolog 2                                     | -0.2727478 | 0.296849 | -0.91881 | 8 | 0.385061 | 0.44        | 0.44        |

|          |                     |                                         |            |          |          |   |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| O70251   | Eef1b Eef1b2        | Elongation factor 1-beta (EF-1-beta)    | 0.3497403  | 0.147878 | 2.36506  | 8 | 0.045596 | 0.111111111 | 0.111111111 |
| Q80U72   | Scrib Kiaa0147 Lapz | Protein scribble homolog (Scribble) (P  | 0.1252729  | 0.20662  | 0.6063   | 8 | 0.561124 | 0.369444444 | 0.369444444 |
| Q80U78-2 | Pum1 Kiaa0099       | Pumilio homolog 1                       | 0.160529   | 0.551784 | 0.29093  | 1 | 0.819765 | 0.7         | 0           |
| Q80U93   | Nup214 Kiaa0023     | Nuclear pore complex protein Nup214     | 0.2517645  | 0.188756 | 1.33381  | 8 | 0.218989 | 0.492307692 | 0.492307692 |
| Q80U95   | Ube3c Kiaa0010 Kia  | Ubiquitin-protein ligase E3C (EC 2.3.2  | -0.4358962 | 0.203071 | -2.14652 | 7 | 0.068967 | 0.5         | 0.4         |
| Q80UE5   | Epb41l2 EBP4.1L2 I  | Epb4.1l2 protein (Erythrocyte membr     | -0.090966  | 0.301774 | -0.30144 | 8 | 0.770768 | 0.448148148 | 0.448148148 |
| Q80UG2   | Plxna4 Kiaa1550     | Plexin-A4                               | 1.4400057  | 0.66721  | 2.15825  | 3 | 0.119773 | 0.5         | 0           |
| Q80UG5-3 | Septin9 Kiaa0991 S  | Septin-9 (SL3-3 integration site 1 prot | 0.0412256  | 0.161438 | 0.25536  | 8 | 0.804884 | 0.357894737 | 0.357894737 |
| Q80UK0   | Sestd1              | SEC14 domain and spectrin repeat-co     | 0.1395229  | 0.315872 | 0.44171  | 8 | 0.670397 | 0.283333333 | 0.283333333 |
| Q80UK8   | Ints2 Kiaa1287      | Integrator complex subunit 2 (Int2)     | -0.132278  | 0.223633 | -0.5915  | 6 | 0.57578  | 0.55        | 0.35        |
| Q80UM7   | Mogs Gcs1           | Mannosyl-oligosaccharide glucosidase    | -0.1614981 | 0.273485 | -0.59052 | 8 | 0.571143 | 0.390909091 | 0.390909091 |
| Q80UP5   | Ankrd13a Ankrd13    | Ankyrin repeat domain-containing prot   | -0.2768055 | 0.356373 | -0.77673 | 4 | 0.480691 | 0.55        | 0.15        |
| Q80UU9   | Pgrmc2              | Membrane-associated progesterone re     | 0.2554787  | 0.405945 | 0.62934  | 8 | 0.546672 | 0.371428571 | 0.371428571 |
| Q80UY1   | Carnmt1             | Carnosine N-methyltransferase (EC 2.    | -0.1517701 | 0.408673 | -0.37137 | 8 | 0.720002 | 0.2         | 0.2         |
| Q9D9Z5   | Dda1                | DET1- and DDB1-associated protein 1     | 0.3447502  | 0.139988 | 2.4627   | 8 | 0.039153 | 0.35        | 0.35        |
| Q80UZ2   | Sdad1               | Protein SDA1 homolog (SDA1 domain       | -0.2377639 | 0.471875 | -0.50387 | 8 | 0.627933 | 0.5         | 0.5         |
| Q80V26   | Bpnt2 Impa3 Impad   | Golgi-resident adenosine 3',5'-bisphos  | -0.1474681 | 0.317933 | -0.46383 | 7 | 0.656845 | 0.48        | 0.38        |
| Q80V76   | Pygo2               | Pygopus 2                               | -0.040703  | 0.248469 | -0.16382 | 8 | 0.87394  | 0.45        | 0.45        |
| Q9DCX2   | Atp5pd Atp5h        | ATP synthase subunit d, mitochondria    | 0.3417928  | 0.146764 | 2.32886  | 8 | 0.048248 | 0.205555556 | 0.205555556 |
| Q9EQQ9   | Oga Hexc Kiaa0679   | Protein O-GlcNAcase (OGA) (EC 3.2.1.    | 0.3356418  | 0.117357 | 2.86002  | 8 | 0.021151 | 0.410526316 | 0.410526316 |
| Q80VD1   | Fam98b              | Protein FAM98B                          | 0.2164121  | 0.147118 | 1.47101  | 8 | 0.179496 | 0.176923077 | 0.176923077 |
| Q80VJ2   | Sra1                | Steroid receptor RNA activator 1 (Sterc | 0.6440352  | 0.643824 | 1.00033  | 8 | 0.346444 | 0.516666667 | 0.516666667 |
| Q80VJ3   | Dnph1               | 5-hydroxymethyl-dUMP N-hydrolase (I     | 0.2730825  | 0.375431 | 0.72738  | 8 | 0.487728 | 0.245454545 | 0.245454545 |
| Q80VL1   | Tdrkh Tdrd2         | Tudor and KH domain-containing prot     | 0.0316528  | 0.277304 | 0.11414  | 8 | 0.911936 | 0.22        | 0.22        |
| Q80VP0   | Tecpr1 Kiaa1358     | Tectonin beta-propeller repeat-contain  | 0.403785   | 0.748187 | 0.53968  | 7 | 0.606148 | 0.25        | 0.15        |
| Q80VP1   | Epn1                | Epsin-1 (EPS-15-interacting protein 1]  | -0.0294663 | 0.244273 | -0.12063 | 8 | 0.90696  | 0.4         | 0.4         |
| Q80VQ1   | Lrrc1               | Leucine-rich repeat-containing protein  | 0.5710405  | 0.568187 | 1.00502  | 6 | 0.353682 | 0.633333333 | 0.433333333 |
| Q80W00   | Ppp1r10 Cat53 Pnu   | Serine/threonine-protein phosphatase    | -0.2597197 | 0.350076 | -0.74189 | 8 | 0.479363 | 0.483333333 | 0.483333333 |
| Q80W14   | Prpf40b Hycp        | Pre-mRNA-processing factor 40 homo      | 0.3520674  | 0.392074 | 0.89796  | 3 | 0.435381 | 0.6         | 0.1         |
| Q80W15   | Igfbpl1 Igfbprp4    | Insulin-like growth factor-binding prot | 0.1205453  | 0.117337 | 1.02734  | 8 | 0.334317 | 0.242857143 | 0.242857143 |
| Q80W21   | Gstm7               | Glutathione S-transferase Mu 7 (EC 2.   | -0.7172156 | 0.225335 | -3.18289 | 2 | 0.086146 | 0.666666667 | 0.066666667 |
| Q9D0S9   | Hint2               | Adenosine 5'-monophosphoramidase        | 0.3280762  | 0.117693 | 2.78756  | 8 | 0.023647 | 0.166666667 | 0.166666667 |
| Q80W54   | Zmpste24 Face1      | CAAX prenyl protease 1 homolog (EC :    | 0.3982875  | 0.669242 | 0.59513  | 8 | 0.568203 | 0           | 0           |
| Q9DBC7   | Prkar1a             | cAMP-dependent protein kinase type I-   | 0.3272378  | 0.097871 | 3.34356  | 8 | 0.010177 | 0.266666667 | 0.266666667 |
| Q80WJ7   | Mtdh Lyric          | Protein LYRIC (3D3/LYRIC) (Lysine-rich  | -0.1388256 | 0.160018 | -0.86756 | 8 | 0.410901 | 0.38        | 0.38        |
| Q80WQ2   | Vac14 D8Wsu151e     | Protein VAC14 homolog                   | 0.1300898  | 0.292083 | 0.44539  | 8 | 0.667846 | 0.471428571 | 0.471428571 |
| Q80WR0   | Nup153              | Nucleoporin 153                         | 0.057427   | 0.132149 | 0.43456  | 8 | 0.675363 | 0.4         | 0.4         |
| Q80WR5   |                     | UPF0688 protein C1orf174 homolog        | -0.1973216 | 0.225468 | -0.87516 | 1 | 0.542319 | 0.7         | 0           |

|          |                     |                                         |            |          |          |    |          |             |             |
|----------|---------------------|-----------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q80WS3   | Fbl1                | rRNA/tRNA 2'-O-methyltransferase fibr   | -0.205841  | 0.110474 | -1.86324 | 8  | 0.099434 | 0           | 0           |
| Q80WT5   | Aftph Afth          | Aftiphilin                              | 0.1195162  | 0.642957 | 0.18589  | 5  | 0.859841 | 0.566666667 | 0.266666667 |
| Q80WW9   | Ddrgk1 Ufbp1        | DDRCK domain-containing protein 1 (     | 0.2616959  | 0.624188 | 0.41926  | 7  | 0.687594 | 0.475       | 0.375       |
| Q80X32   |                     | UPF0461 protein C5orf24 homolog         | 0.1331839  | 0.197498 | 0.67436  | 7  | 0.521725 | 0.433333333 | 0.333333333 |
| Q80X41   | Vrk1                | Serine/threonine-protein kinase VRK1    | -0.1269878 | 0.316304 | -0.40147 | 8  | 0.698582 | 0.415384615 | 0.415384615 |
| Q80X50-5 | Ubap2l              | Ubiquitin-associated protein 2-like (RM | 0.6794173  | 0.581148 | 1.1691   | 2  | 0.362849 | 0.6         | 0           |
| Q80X71   | Tmem106b            | Transmembrane protein 106B              | 0.0464037  | 0.3907   | 0.11877  | 6  | 0.909334 | 0.2         | 0           |
| Q80X73   | Pelo                | Protein pelota homolog                  | 0.2964703  | 0.179057 | 1.65574  | 8  | 0.136368 | 0.463636364 | 0.463636364 |
| Q80X80   | C2cd2l Tmem24       | Phospholipid transfer protein C2CD2l    | -0.4397235 | 0.198075 | -2.21999 | 1  | 0.269437 | 0.7         | 0           |
| Q80X81   | Acat3               | acetyl-CoA C-acetyltransferase (EC 2.3  | -0.1644158 | 0.562731 | -0.29217 | 4  | 0.784681 | 0.4         | 0           |
| Q80X82   | Sympk               | Symplekin                               | -0.0720889 | 0.152575 | -0.47248 | 8  | 0.649204 | 0.425       | 0.425       |
| Q80X85   | Mrps7               | Small ribosomal subunit protein uS7r    | 0.2753265  | 0.262653 | 1.04825  | 7  | 0.329361 | 0.5         | 0.4         |
| Q80X90   | Flnb                | Filamin-B (FLN-B) (ABP-280-like protei  | -0.1377966 | 0.078394 | -1.75775 | 8  | 0.116846 | 0.293103448 | 0.293103448 |
| Q80X95   | Rraga               | Ras-related GTP-binding protein A (Rag  | -0.2264079 | 0.343454 | -0.65921 | 7  | 0.530841 | 0.533333333 | 0.433333333 |
| Q80X98   | Dhx38               | RNA helicase (EC 3.6.4.13)              | 0.1302865  | 0.243787 | 0.53443  | 7  | 0.609592 | 0.533333333 | 0.433333333 |
| Q80XC2   | Trmt61a Trm61       | tRNA (adenine(58)-N(1))-methyltransf    | 0.2259886  | 0.159209 | 1.41945  | 8  | 0.193538 | 0.333333333 | 0.333333333 |
| Q80XI4   | Pip4k2b Pip5k2b     | Phosphatidylinositol 5-phosphate 4-k    | -0.1667415 | 0.11769  | -1.41679 | 8  | 0.194288 | 0.316666667 | 0.316666667 |
| Q80XJ2   | Rnf168              | E3 ubiquitin-protein ligase RNF168 (E   | 0.2902732  | 0.248909 | 1.16618  | 5  | 0.296136 | 0.65        | 0.35        |
| Q80XJ3   | Ttc28 Kiaa1043 Tprl | Tetratricopeptide repeat protein 28 (TF | 0.6063876  | 0.0552   | 10.9852  | 1  | 0.057793 | 0.7         | 0           |
| Q80XN0   | Bdh1 Bdh            | D-beta-hydroxybutyrate dehydrogenase    | 0.1791578  | 0.133532 | 1.34168  | 8  | 0.216534 | 0.29        | 0.29        |
| Q80XP8   | Fam76b              | Protein FAM76B                          | 0.3710925  | 0.371285 | 0.99948  | 8  | 0.34683  | 0.38        | 0.38        |
| Q80XP9   | Wnk3                | Serine/threonine-protein kinase WNK3    | 0.0753863  | 0.685212 | 0.11002  | 3  | 0.919341 | 0.5         | 0           |
| Q80XQ2   | Tbc1d5              | TBC1 domain family member 5             | -0.4284649 | 0.516244 | -0.82997 | 3  | 0.467433 | 0.65        | 0.15        |
| Q80XR8   | Git2                | G protein-coupled receptor kinase-inte  | 0.6690675  | 0.390592 | 1.71296  | 8  | 0.125074 | 0.522222222 | 0.522222222 |
| Q7TNE3   | Spag7               | Sperm-associated antigen 7              | 0.326462   | 0.103766 | 3.14615  | 8  | 0.013678 | 0.21        | 0.21        |
| Q80Y14   | Glr5                | Glutaredoxin-related protein 5, mitoch  | 0.141055   | 0.30661  | 0.46005  | 8  | 0.657727 | 0.25        | 0.25        |
| Q80Y20-2 | Alkbh8              | Alkylated DNA repair protein alkB hom   | 0.5989096  | 1.172802 | 0.51067  | 1  | 0.699424 | 0.7         | 0           |
| Q80Y55   | Bsd1                | BSD domain-containing protein 1         | 0.0038536  | 0.284832 | 0.01353  | 7  | 0.989583 | 0.6         | 0.5         |
| Q80Y56   | Rbsn Zfyve20        | Rabenosyn-5 (FYVE finger-containing f   | 0.1359471  | 0.190675 | 0.71298  | 2  | 0.549823 | 0.7         | 0.1         |
| Q80Y81   | Elac2               | Zinc phosphodiesterase ELAC protein     | -0.2416138 | 0.262181 | -0.92155 | 8  | 0.38371  | 0.32        | 0.32        |
| Q80Y82   | Zmynd8 Prkcbp1      | Protein kinase C binding protein 1      | 0.0046592  | 0.243925 | 0.0191   | 8  | 0.985228 | 0.48        | 0.48        |
| Q80Y84   | Kdm5b Jarid1b Kiaa  | Lysine-specific demethylase 5B (EC 1.1  | 0.2957085  | 0.612253 | 0.48298  | 8  | 0.642047 | 0.571428571 | 0.571428571 |
| Q80YA8   | Crb2                | Protein crumbs homolog 2 (crumbs2)      | 0.2898174  | 0.308904 | 0.93821  | 7  | 0.37937  | 0.575       | 0.475       |
| Q80YC2   | Hsp90ab1 Hspcb      | Hsp90ab1 protein                        | 0.2883222  | 0.181298 | 1.59033  | 8  | 0.150425 | 0.3         | 0.3         |
| Q80YD1   | Supv3l1 Suv3l1      | ATP-dependent RNA helicase SUPV3L1      | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q80YQ2   | Med23 Crsp3 Kiaa1   | Mediator of RNA polymerase II transcri  | 0.2253063  | 0.370975 | 0.60734  | 6  | 0.565888 | 0.533333333 | 0.333333333 |
| Q80YQ8   | Rmnd5a              | E3 ubiquitin-protein ligase RMND5A (E   | -0.1829699 | 0.680953 | -0.2687  | 1  | 0.832889 | 0.7         | 0           |
| Q80YR4   | Znf598 Zfp598       | E3 ubiquitin-protein ligase ZNF598 (E   | -0.610488  | 0.635247 | -0.96102 | 4  | 0.390962 | 0.6         | 0.2         |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q80YR5   | Safb2              | Scaffold attachment factor B2 (SAF-B2    | 0.4811789  | 0.719555 | 0.66872  | 8 | 0.5225   | 0.444444444 | 0.444444444 |
| Q80YV2   | Zc3hc1 Nipa        | Zinc finger C3HC-type protein 1 (Nucl    | 0.1226634  | 0.16766  | 0.73162  | 8 | 0.485277 | 0.392307692 | 0.392307692 |
| Q80YX1   | Tnc Hxb            | Tenascin (TN) (Hexabrachion) (Tenasci    | -0.2262858 | 0.593882 | -0.38103 | 2 | 0.739849 | 0.6         | 0           |
| Q80Z24   | Negr1 Kiaa3001 Ntr | Neuronal growth regulator 1 (Kindred     | 0.3928638  | 0.544836 | 0.72107  | 8 | 0.491399 | 0           | 0           |
| Q80Z37   | Topors             | E3 ubiquitin-protein ligase Topors (EC   | -0.2990945 | 0.226398 | -1.3211  | 1 | 0.412485 | 0.7         | 0           |
| Q80ZM5   | H1f10 H1fx         | H1 histone family, member X (H1.10 li    | -0.2762919 | 0.251715 | -1.09764 | 8 | 0.304298 | 0.25        | 0.25        |
| Q80ZM7   | Gtf2a2             | Transcription initiation factor IIA subu | 0.803255   | 1.910943 | 0.42034  | 4 | 0.695832 | 0.4         | 0           |
| Q80ZQ9   | Abitram Fam206a Si | Protein Abitram (Actin-binding transcr   | -0.4472498 | 0.683788 | -0.65408 | 8 | 0.531411 | 0.4         | 0.4         |
| Q80ZV0   | Rnaseh2b Dleu8     | Ribonuclease H2 subunit B (RNase H2      | -0.158013  | 0.225578 | -0.70048 | 8 | 0.503487 | 0.4375      | 0.4375      |
| D3Z3N4   | Hnrnph3            | Heterogeneous nuclear ribonucleopro      | 0.3120313  | 0.107064 | 2.91443  | 8 | 0.019456 | 0.24        | 0.24        |
| Q810A3   | Ttc9c              | Tetratricopeptide repeat protein 9C (TF  | 0.2110651  | 0.271066 | 0.77865  | 8 | 0.458597 | 0.371428571 | 0.371428571 |
| Q810A7   | Ddx42              | ATP-dependent RNA helicase DDX42 (I      | 0.0156744  | 0.047089 | 0.33287  | 8 | 0.747789 | 0.319444444 | 0.319444444 |
| Q810B6   | Ankfy1 Ankhzn Kiaa | Rabankyrin-5 (Rank-5) (Ankyrin repeat    | -0.3601496 | 0.231788 | -1.55379 | 8 | 0.158841 | 0.533333333 | 0.533333333 |
| Q810D6   | Grwd1 A301         | Glutamate-rich WD repeat-containing p    | 0.0184085  | 0.216341 | 0.08509  | 8 | 0.934281 | 0.2875      | 0.2875      |
| Q810J8   | Zfyve1             | Zinc finger FYVE domain-containing pr    | 0.3226042  | 0.362457 | 0.89005  | 6 | 0.407708 | 0.666666667 | 0.466666667 |
| Q810U3   | Nfasc              | Neurofascin                              | 0.1053929  | 0.118519 | 0.88925  | 8 | 0.399818 | 0.488888889 | 0.488888889 |
| Q810U4-2 | Nrcam Kiaa0343     | Neuronal cell adhesion molecule (Nr-C    | 0.1679436  | 0.103657 | 1.62019  | 8 | 0.14385  | 0.4         | 0.4         |
| Q810U5   | Ccdc50             | Coiled-coil domain-containing protein    | 0.5874533  | 0.348518 | 1.68558  | 8 | 0.130366 | 0.371428571 | 0.371428571 |
| Q810V0   | Mphosph10          | U3 small nucleolar ribonucleoprotein p   | 0.0964092  | 0.219878 | 0.43847  | 8 | 0.672647 | 0.371428571 | 0.371428571 |
| Q811B5   | Prr3 Cat56         | Proline-rich protein 3 (MHC class I regi | -0.6629572 | 0.389282 | -1.70303 | 5 | 0.149293 | 0.3         | 0           |
| Q811D0-2 | Dlg1 Dlgh1         | Disks large homolog 1 (Embryo-dlg/sy     | 0.004272   | 0.28063  | 0.01522  | 8 | 0.988227 | 0.409090909 | 0.409090909 |
| Q811J2   | LOC72520           | LOC72520 protein                         | 0.1462886  | 0.255072 | 0.57352  | 8 | 0.582052 | 0.542857143 | 0.542857143 |
| Q811S7   | Ubp1 Cp2b Nf2d9    | Upstream-binding protein 1 (Nuclear f    | 0.2785528  | 0.223124 | 1.24842  | 8 | 0.247173 | 0.48        | 0.48        |
| Q811U4   | Mfn1               | Mitofusin-1 (EC 3.6.5.-) (Transmembr     | -0.0512552 | 0.194964 | -0.2629  | 5 | 0.80312  | 0.55        | 0.25        |
| Q9JHJ0   | Tmod3              | Tropomodulin-3 (Ubiquitous tropomc       | 0.3083616  | 0.113122 | 2.72591  | 8 | 0.02601  | 0.333333333 | 0.333333333 |
| Q8BFQ4   | Wdr82 Cdw5         | WD repeat-containing protein 82          | 0.1828049  | 0.245027 | 0.74606  | 8 | 0.476978 | 0.3         | 0.3         |
| Q99J09   | Wdr77 Mep50        | Methylosome protein WDR77 (Methylo       | 0.2983064  | 0.110089 | 2.70969  | 8 | 0.026671 | 0.205882353 | 0.205882353 |
| Q8BFR5   | Tufm               | Elongation factor Tu, mitochondrial      | -0.0307594 | 0.121198 | -0.25379 | 8 | 0.806055 | 0.186486486 | 0.186486486 |
| Q8BFR6   | Zfand1             | AN1-type zinc finger protein 1 (Zinc fin | -0.0029123 | 0.168387 | -0.0173  | 5 | 0.98687  | 0.3         | 0           |
| Q8BFS6   | Cpped1 Cstp1       | Serine/threonine-protein phosphatase     | -0.7183636 | 0.560714 | -1.28116 | 2 | 0.328617 | 0.6         | 0           |
| Q8BFU3   | Rnf214             | RING finger protein 214                  | 0.3273669  | 0.144553 | 2.26468  | 8 | 0.053331 | 0.344444444 | 0.344444444 |
| Q8BFV2   | Pcid2              | PCI domain-containing protein 2 (CSN     | 0.0228989  | 0.348553 | 0.0657   | 8 | 0.949231 | 0.522222222 | 0.522222222 |
| Q8BFW7   | Lpp                | Lipoma-preferred partner homolog         | -0.6845596 | 0.499648 | -1.37008 | 1 | 0.401389 | 0.7         | 0           |
| Q8BFY6   | Pef1               | Peflin (PEF protein with a long N-termi  | 0.0597984  | 0.186023 | 0.32146  | 8 | 0.756102 | 0.266666667 | 0.266666667 |
| Q8BFY9   | Tnpo1 Kpnb2        | Transportin-1 (Importin beta-2) (Karyc   | 0.0563983  | 0.339797 | 0.16598  | 8 | 0.872293 | 0.279411765 | 0.279411765 |
| Q8BFZ3   | Actbl2             | Beta-actin-like protein 2 (Kappa-actin)  | -0.147397  | 0.52042  | -0.28323 | 8 | 0.784194 | 0.2         | 0.2         |
| P97371   | Psme1              | Proteasome activator complex subunit     | 0.2950369  | 0.087816 | 3.3597   | 8 | 0.009936 | 0.257142857 | 0.257142857 |
| Q8BG05   | Hnrnpa3 Hnrpa3     | Heterogeneous nuclear ribonucleopro      | 0.8710915  | 0.726265 | 1.19941  | 8 | 0.264683 | 0.122222222 | 0.122222222 |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8BG15 | Ctdspl2 D2Ert485   | CTD small phosphatase-like protein 2     | -0.3956328 | 0.241497 | -1.63825 | 8 | 0.140003 | 0.4         | 0.4         |
| Q8BG30 | Nelfa Whsc2 Whsc2  | Negative elongation factor A (NELF-A)    | -0.2544022 | 0.4248   | -0.59888 | 8 | 0.565824 | 0.488888889 | 0.488888889 |
| Q8BG32 | Psmd11             | 26S proteasome non-ATPase regulator      | 0.4709216  | 0.419384 | 1.12289  | 8 | 0.294051 | 0.306060606 | 0.306060606 |
| Q8BG40 | Katnb1             | Katanin p80 WD40 repeat-containing s     | 0.1504989  | 0.168246 | 0.89452  | 3 | 0.436956 | 0.6         | 0.1         |
| Q8BG51 | Rhot1 Arht1        | Mitochondrial Rho GTPase 1 (MIRO-1)      | 0.2652207  | 0.406272 | 0.65282  | 8 | 0.532183 | 0.4         | 0.4         |
| Q8BG79 | Cwf19l2            | CWF19-like protein 2                     | 0.1960092  | 0.553745 | 0.35397  | 4 | 0.741232 | 0.7         | 0.3         |
| Q8BG81 | Poldip3            | Polymerase delta-interacting protein 3   | 0.0580568  | 0.17857  | 0.32512  | 8 | 0.753429 | 0.3         | 0.3         |
| Q8BGA5 | Krr1 Hrb2          | KRR1 small subunit processome comp       | 0.2949523  | 0.312556 | 0.94368  | 3 | 0.414953 | 0.6         | 0.1         |
| Q8BGA7 | Ints15             | Integrator complex subunit 15            | 0.1617995  | 0.782685 | 0.20672  | 5 | 0.84438  | 0.3         | 0           |
| Q8BGA9 | Oxa1l              | Mitochondrial inner membrane protein     | -0.0170887 | 0.772265 | -0.02213 | 7 | 0.982963 | 0.1         | 0           |
| Q8BGB5 | Limd2              | LIM domain-containing protein 2          | 0.7079664  | 0.58714  | 1.20579  | 8 | 0.262349 | 0.5         | 0.5         |
| Q8BGB7 | Enoph1 Masa        | Enolase-phosphatase E1 (EC 3.1.3.77      | 0.5164957  | 0.536976 | 0.96186  | 8 | 0.364287 | 0.25        | 0.25        |
| Q8BGC0 | Htatsf1            | 17S U2 SnRNP complex component H         | 0.3724061  | 0.201092 | 1.85192  | 8 | 0.101179 | 0.431578947 | 0.431578947 |
| Q8BGC1 |                    | UPF0489 protein C5orf22 homolog          | -0.621256  | 0.138972 | -4.47038 | 1 | 0.140102 | 0.7         | 0           |
| Q8BGC4 | Ptgr3 Zadh2        | Prostaglandin reductase-3 (PTGR-3) (E    | -0.494416  | 0.266741 | -1.85354 | 1 | 0.314969 | 0.7         | 0           |
| Q8BGD8 | Coa6               | Cytochrome c oxidase assembly factor     | 0.0166548  | 0.163889 | 0.10162  | 6 | 0.922368 | 0.5         | 0.3         |
| Q8BGD9 | Eif4b              | Eukaryotic translation initiation factor | 0.3878392  | 0.303368 | 1.27845  | 8 | 0.236932 | 0.24375     | 0.24375     |
| Q8BGF3 | Dnaaf10 Wdr92      | Dynein axonemal assembly factor 10 (I    | 0.4068989  | 0.228938 | 1.77733  | 7 | 0.118757 | 0.533333333 | 0.433333333 |
| Q8BGH2 | Samm50             | Sorting and assembly machinery comp      | 0.0729789  | 0.157578 | 0.46313  | 8 | 0.65561  | 0.354545455 | 0.354545455 |
| Q8BGH4 | Reep1 D6Ert253e    | Receptor expression-enhancing protei     | 0.3069392  | 0.343967 | 0.89235  | 8 | 0.398251 | 0.333333333 | 0.333333333 |
| Q8BGH7 | Cdc42se2           | CDC42 small effector protein 2           | 0.0474792  | 0.201856 | 0.23521  | 8 | 0.819952 | 0.325       | 0.325       |
| Q8BGK5 | Slc35f1            | Solute carrier family 35 member F1       | -0.1535073 | 0.288756 | -0.53162 | 8 | 0.609432 | 0.4         | 0.4         |
| Q8BGK6 | Slc7a6 Kiaa0245    | Y+L amino acid transporter 2 (Solute c   | -0.0497803 | 0.344712 | -0.14441 | 5 | 0.890816 | 0.6         | 0.3         |
| Q8BGQ1 | Vipas39 Spe39 Vipa | Spermatogenesis-defective protein 39     | -0.468809  | 0.479761 | -0.97717 | 3 | 0.400549 | 0.5         | 0           |
| Q8BGQ7 | Aars1 Aars         | Alanine--tRNA ligase, cytoplasmic (EC    | 0.2094838  | 0.14992  | 1.3973   | 8 | 0.199858 | 0.287719298 | 0.287719298 |
| Q8BGR9 | Ublcp1             | Ubiquitin-like domain-containing CTD     | 0.2602178  | 0.225042 | 1.15631  | 8 | 0.280917 | 0.466666667 | 0.466666667 |
| P19157 | Gstp1 Gstpib       | Glutathione S-transferase P 1 (Gst P1)   | 0.2933515  | 0.107171 | 2.73723  | 8 | 0.025558 | 0.289655172 | 0.289655172 |
| Q8BGS1 | Epb41l5 Epb4.1l5 k | Band 4.1-like protein 5 (Erythrocyte m   | 0.0154627  | 0.181275 | 0.0853   | 8 | 0.934119 | 0.4125      | 0.4125      |
| Q8BGS2 | Bola2              | Bola-like protein 2                      | -0.2086681 | 0.620686 | -0.33619 | 8 | 0.745376 | 0.2         | 0.2         |
| Q8BGS3 | Zkscan1            | Zinc finger protein with KRAB and SCA    | 0.5195157  | 0.793563 | 0.65466  | 8 | 0.531053 | 0.544444444 | 0.544444444 |
| Q8BGT1 | Flrt3 Kiaa1469     | Leucine-rich repeat transmembrane pr     | 0.3008403  | 0.305466 | 0.98486  | 8 | 0.353539 | 0.483333333 | 0.483333333 |
| Q8BGT5 | Gpt2 Aat2          | Alanine aminotransferase 2 (ALT2) (EC    | -0.130498  | 0.493097 | -0.26465 | 3 | 0.808421 | 0.5         | 0           |
| Q8BGT7 | Smndc1 Smnr Spf3   | Survival of motor neuron-related-splic   | -0.0273208 | 0.157215 | -0.17378 | 8 | 0.866355 | 0.3         | 0.3         |
| Q8BGT8 | Phyhipl            | Phytanoyl-CoA hydroxylase-interactin     | 0.4493699  | 0.405317 | 1.10869  | 8 | 0.29978  | 0.533333333 | 0.533333333 |
| Q8BGU5 | Ccny Cfp1          | Cyclin-Y (Cyclin fold protein 1)         | -0.475647  | 0.281099 | -1.6921  | 3 | 0.189204 | 0.65        | 0.15        |
| Q8BGV4 | Tti2               | TELO2-interacting protein 2              | -0.837026  | 0.368122 | -2.27378 | 4 | 0.085371 | 0.4         | 0           |
| Q8BGW1 | Fto Kiaa1752       | Alpha-ketoglutarate-dependent dioxyg     | 0.1966013  | 0.174854 | 1.12437  | 8 | 0.293458 | 0.328571429 | 0.328571429 |
| Q8BGX2 | Timm29             | Mitochondrial import inner membrane      | -0.0571019 | 0.437348 | -0.13056 | 8 | 0.899344 | 0.325       | 0.325       |

|          |          |             |                                          |            |          |          |   |          |             |             |
|----------|----------|-------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8BGZ2   | Fam168a  | Kiaa0280    | Protein FAM168A                          | 0.3324439  | 0.361952 | 0.91848  | 8 | 0.385225 | 0.375       | 0.375       |
| Q8BGZ4   | Cdc23    | Anapc8      | Cell division cycle protein 23 homolog   | -0.0637503 | 0.255375 | -0.24963 | 8 | 0.809161 | 0.35        | 0.35        |
| Q8BH04   | Pck2     |             | Phosphoenolpyruvate carboxykinase [      | -0.2080258 | 0.434747 | -0.4785  | 8 | 0.645099 | 0.51        | 0.51        |
| Q8BH07   | Arl6ip6  |             | ADP-ribosylation factor-like protein 6-  | -0.1650847 | 0.494452 | -0.33387 | 5 | 0.752023 | 0.3         | 0           |
| Q8BH15-2 | Cnot10   |             | CCR4-NOT transcription complex sub       | 0.2442109  | 0.555205 | 0.43986  | 3 | 0.6898   | 0.5         | 0           |
| Q8BH15   | Cnot10   |             | CCR4-NOT transcription complex sub       | -0.1126769 | 0.5367   | -0.20994 | 4 | 0.843971 | 0.4         | 0           |
| P63280   | Ube2i    | Ubc9 Ubce2i | SUMO-conjugating enzyme UBC9 (EC         | 0.2901794  | 0.097999 | 2.96106  | 8 | 0.018117 | 0.131578947 | 0.131578947 |
| Q8BH43   | Wasf2    | Wave2       | Actin-binding protein WASF2 (Protein     | -0.1365887 | 0.425832 | -0.32076 | 4 | 0.764453 | 0.5         | 0.1         |
| Q8BH44   | Coro2b   |             | Coronin-2B                               | -0.1202987 | 0.319347 | -0.3767  | 8 | 0.71619  | 0.38        | 0.38        |
| Q8BH50   | Ark2n    |             | Protein ARK2N (Arkadia (RNF111) N-te     | 0.1363785  | 1.08012  | 0.12626  | 1 | 0.920042 | 0.7         | 0           |
| Q8BH57   | Wdr48    | Kiaa1449    | WD repeat-containing protein 48 (USP     | -0.2920535 | 0.180406 | -1.61887 | 8 | 0.144135 | 0.52        | 0.52        |
| Q8BH58   | Tiprl    |             | TIP41-like protein                       | 0.2624608  | 0.25376  | 1.03429  | 8 | 0.331251 | 0.28        | 0.28        |
| Q8BH59   | Slc25a12 |             | Electrogenic aspartate/glutamate antip   | 0.0667289  | 0.198741 | 0.33576  | 8 | 0.74569  | 0.327777778 | 0.327777778 |
| Q8BH66   | Atl1     | Spg3a       | Atlastin-1 (EC 3.6.5.-) (Spastic paraple | 0.061611   | 0.563459 | 0.10934  | 7 | 0.915998 | 0.475       | 0.375       |
| Q8BH69   | Sephs1   | Sps1        | Selenide, water dikinase 1 (EC 2.7.9.3)  | 0.0690695  | 0.166526 | 0.41477  | 8 | 0.689212 | 0.194736842 | 0.194736842 |
| Q8BH74   | Nup107   |             | Nuclear pore complex protein Nup107      | 0.1179747  | 0.362742 | 0.32523  | 8 | 0.753349 | 0.453846154 | 0.453846154 |
| Q8BH75   | Rnf41    | Flrf Nrdp1  | E3 ubiquitin-protein ligase NRDP1 (EC    | 0.7991715  | 0.323643 | 2.4693   | 2 | 0.13224  | 0.6         | 0           |
| Q8BH95   | Echs1    |             | Enoyl-CoA hydratase, mitochondrial (r    | 0.2559076  | 0.288341 | 0.88752  | 8 | 0.400696 | 0.4         | 0.4         |
| Q8BH97   | Rcn3     | D7Ertd671e  | Reticulocalbin-3                         | 0.2928802  | 0.254694 | 1.14993  | 8 | 0.283386 | 0.290909091 | 0.290909091 |
| Q8BHA3   | Dtd2     |             | D-aminoacyl-tRNA deacylase 2 (EC 3.1     | -0.6478175 | 0.444446 | -1.45758 | 8 | 0.183062 | 0.433333333 | 0.433333333 |
| Q9CQN7   | Mrpl41   |             | Large ribosomal subunit protein mL41     | 0.2849724  | 0.093754 | 3.03958  | 8 | 0.016074 | 0.4         | 0.4         |
| Q8BHB9   | Clic6    |             | Chloride intracellular channel protein 6 | 0.2508923  | 0.595613 | 0.42123  | 8 | 0.684674 | 0.46        | 0.46        |
| Q8BHC4   | Dcakd    |             | Dephospho-CoA kinase domain-conta        | 0.1765643  | 0.215814 | 0.81813  | 8 | 0.436971 | 0.3375      | 0.3375      |
| Q8BHD7   | Ptbp3    | Rod1        | Polypyrimidine tract-binding protein 3   | -0.1052261 | 0.135398 | -0.77716 | 2 | 0.518394 | 0.6         | 0           |
| Q8BFZ9   | Erlin2   | Spfh2       | Erlin-2 (Endoplasmic reticulum lipid ra  | 0.2736469  | 0.102919 | 2.65885  | 8 | 0.028857 | 0.276470588 | 0.276470588 |
| Q8BHG1   | Nrdc     | Nrd1        | Nardilysin (EC 3.4.24.61) (N-arginine c  | -0.0668573 | 0.130517 | -0.51225 | 8 | 0.622315 | 0.364285714 | 0.364285714 |
| Q8BHG2   | Czib     |             | CXXC motif containing zinc binding pr    | 0.2103194  | 0.218602 | 0.96211  | 8 | 0.364168 | 0.3         | 0.3         |
| Q8BHG9   | Cggbp1   |             | CGG triplet repeat-binding protein 1 (C  | 0.0752423  | 0.179105 | 0.4201   | 8 | 0.685467 | 0.42        | 0.42        |
| Q8BHJ5   | Tbl1xr1  | Ira1 Tblr1  | F-box-like/WD repeat-containing prote    | 0.1468212  | 0.22274  | 0.65916  | 8 | 0.528306 | 0.3         | 0.3         |
| Q8BHJ9   | Slu7     | D11Ertd730e | Pre-mRNA-splicing factor SLU7            | 0.33523    | 0.348426 | 0.96213  | 8 | 0.364161 | 0.375       | 0.375       |
| Q8BHK9   | Ercc6l   |             | DNA excision repair protein ERCC-6-lil   | 0.27051    | 0.465723 | 0.58084  | 8 | 0.577341 | 0.533333333 | 0.533333333 |
| Q8BHL3   | Tbc1d10b |             | TBC1 domain family member 10B (Pro       | 0.0577254  | 0.250953 | 0.23002  | 8 | 0.823845 | 0.4         | 0.4         |
| Q8BHL5   | Elmo2    | Kiaa1834    | Engulfment and cell motility protein 2   | 0.3039557  | 0.308235 | 0.98612  | 8 | 0.352958 | 0.44        | 0.44        |
| Q8BHL8   | Psmf1    |             | Proteasome inhibitor PI31 subunit        | 0.0673412  | 0.124471 | 0.54102  | 8 | 0.603228 | 0.175       | 0.175       |
| Q8BHN1   | Txlng    | Lrg         | Gamma-taxilin (Factor inhibiting ATF4-   | -0.3336725 | 0.185427 | -1.79948 | 6 | 0.12204  | 0.5         | 0.3         |
| Q8BHN3   | Ganab    | G2an Kiaa00 | Neutral alpha-glucosidase AB (EC 3.2.1   | -0.2135746 | 0.546136 | -0.39106 | 8 | 0.705958 | 0.2         | 0.2         |
| Q8BHN5   | Rbm45    | Drb1 Drbp1  | RNA-binding protein 45 (Development      | 0.2933703  | 0.257585 | 1.13892  | 6 | 0.298156 | 0.35        | 0.15        |
| Q8BHS3   | Rbm22    |             | Pre-mRNA-splicing factor RBM22 (RNA      | -0.0893354 | 0.200471 | -0.44563 | 8 | 0.667679 | 0.371428571 | 0.371428571 |

|          |                     |                                          |            |          |          |    |          |              |              |
|----------|---------------------|------------------------------------------|------------|----------|----------|----|----------|--------------|--------------|
| Q8BHT6   | B3glct B3galtl Gm10 | Beta-1,3-glucosyltransferase (Beta3Glc   | -0.37604   | 0.266038 | -1.41348 | 5  | 0.216639 | 0.6          | 0.3          |
| Q9QZE7   | Tsnax Trax          | Translin-associated protein X (Translin  | 0.2711231  | 0.113787 | 2.38274  | 8  | 0.044356 | 0.28         | 0.28         |
| Q8BHX3   | Cdca8               | Borealin (Cell division cycle-associated | 0.0605475  | 0.316812 | 0.19111  | 8  | 0.853197 | 0.3333333333 | 0.3333333333 |
| Q8BHY2   | Noc4l               | Nucleolar complex protein 4 homolog      | -0.148096  | 0.308649 | -0.47982 | 4  | 0.656413 | 0.65         | 0.25         |
| Q8BHZ0   | Cyria D12ErtD553e   | CYFIP-related Rac1 interactor A          | 0.2201929  | 0.457722 | 0.48106  | 8  | 0.643354 | 0.54         | 0.54         |
| Q8BHZ4   | Znf592 Kiaa0211 Zf  | Zinc finger protein 592 (Zfp-592)        | 0.3301643  | 0.48135  | 0.68591  | 1  | 0.617259 | 0.7          | 0            |
| Q8BI66-2 | Znf526 Kiaa1951 Zf  | Zinc finger protein 526                  | 0.4597664  | 0.421533 | 1.0907   | 2  | 0.389289 | 0.6          | 0            |
| Q8BI72   | Cdkn2aip Carf       | CDKN2A-interacting protein (Collabor     | 0.0762823  | 0.199388 | 0.38258  | 8  | 0.711993 | 0.342857143  | 0.342857143  |
| Q8BIA4   | Fbxw8               | F-box/WD repeat-containing protein 8     | 0.3532328  | 0.288093 | 1.22611  | 8  | 0.255023 | 0.48         | 0.48         |
| Q8BIC1   | Zfp871              | Uncharacterized protein                  | -0.058405  | 0.387341 | -0.15078 | 8  | 0.883878 | 0.4          | 0.4          |
| Q8BIE6   | Frmd4a Frmd4 Kiaa1  | FERM domain-containing protein 4A        | -0.3106801 | 0.217761 | -1.4267  | 8  | 0.191505 | 0.3333333333 | 0.3333333333 |
| Q8BIF9   | Znf787 Zfp787       | Zinc finger protein 787                  | 0.1928698  | 0.839153 | 0.22984  | 4  | 0.829492 | 0.7          | 0.3          |
| Q8BIG4   | Fbxo28 D1ErtD578    | F-box only protein 28                    | Inf        | NA       | NA       | NA | NA       | NA           | NA           |
| Q8BIH0   | Sap130              | Histone deacetylase complex subunit 5    | 0.4612765  | 0.529078 | 0.87185  | 8  | 0.408693 | 0.35         | 0.35         |
| Q8BIJ6   | Iars2               | Isoleucine--tRNA ligase, mitochondrial   | 0.0495643  | 0.176212 | 0.28128  | 8  | 0.785636 | 0.446153846  | 0.446153846  |
| Q8BIL5   | Hook1               | Protein Hook homolog 1 (mHK1)            | 1.0592686  | 0.718267 | 1.47476  | 8  | 0.178511 | 0.5          | 0.5          |
| Q8BIV3   | Ranbp6              | Ran-binding protein 6 (RanBP6)           | -0.1044025 | 0.492465 | -0.212   | 2  | 0.85175  | 0.6          | 0            |
| Q8BIW1   | Prune1 Prune        | Exopolyphosphatase PRUNE1 (EC 3.6        | 0.0507664  | 0.184171 | 0.27565  | 8  | 0.789804 | 0.24         | 0.24         |
| Q8BIW9   | Chtf18 Ctf18        | Chromosome transmission fidelity prc     | -0.1815315 | 0.329701 | -0.55059 | 5  | 0.605606 | 0.6333333333 | 0.3333333333 |
| Q8BIZ6   | Snip1               | Smad nuclear-interacting protein 1       | -0.5001078 | 0.445391 | -1.12285 | 3  | 0.343255 | 0.6          | 0.1          |
| Q8BJ05   | Zc3h14              | Zinc finger CCCH domain-containing p     | -0.12954   | 0.150532 | -0.86055 | 8  | 0.414532 | 0.427777778  | 0.427777778  |
| Q8BJ37   | Tdp1                | Tyrosyl-DNA phosphodiesterase 1 (Tyr     | -0.1693896 | 0.293989 | -0.57618 | 8  | 0.580339 | 0.266666667  | 0.266666667  |
| Q8BJ71   | Nup93 Cip4 Kiaa00   | Nuclear pore complex protein Nup93 (     | -0.1449009 | 0.198896 | -0.72853 | 8  | 0.487067 | 0.291891892  | 0.291891892  |
| Q8BJ90   | Znf771 Zfp771       | Zinc finger protein 771                  | -0.4499438 | 0.559171 | -0.80466 | 8  | 0.444268 | 0.514285714  | 0.514285714  |
| Q8BJ97   | Zfp444              | Zinc finger protein 444                  | -0.1272672 | 0.909961 | -0.13986 | 4  | 0.89553  | 0.4          | 0            |
| Q8BJA3   | Hmbox1              | Homeobox-containing protein 1            | 0.1008186  | 0.189815 | 0.53114  | 6  | 0.614398 | 0.35         | 0.15         |
| Q8BJH1   | Zc2hc1a Fam164a     | Zinc finger C2HC domain-containing p     | -0.0072662 | 0.191514 | -0.03794 | 8  | 0.970665 | 0.566666667  | 0.566666667  |
| Q8BJH2   | Add3                | Class II aldolase/adducin N-terminal d   | #NAME?     | NA       | NA       | NA | NA       | NA           | NA           |
| Q8BJL0   | Smarca1 Harp        | SWI/SNF-related matrix-associated acti   | -0.6197886 | 0.206328 | -3.0039  | 3  | 0.05749  | 0.5          | 0            |
| Q8BJL1   | Fbxo30              | F-box only protein 30 (Muscle ubiquiti   | -0.0859001 | 0.345779 | -0.24843 | 8  | 0.810064 | 0.3333333333 | 0.3333333333 |
| Q8BJS4   | Sun2 Unc84b         | SUN domain-containing protein 2 (Prc     | -0.1425028 | 0.295545 | -0.48217 | 8  | 0.642601 | 0.466666667  | 0.466666667  |
| Q8BJU0   | SgtA Sgt            | Small glutamine-rich tetratricopeptide   | 0.0822787  | 0.113873 | 0.72255  | 8  | 0.490538 | 0.192307692  | 0.192307692  |
| Q8BJW5-2 | Nol11               | Nucleolar protein 11                     | 0.0573143  | 0.404926 | 0.14154  | 3  | 0.896412 | 0.666666667  | 0.166666667  |
| Q8BJW6   | Eif2a D3ErtD194e    | Eukaryotic translation initiation factor | -0.0183413 | 0.232115 | -0.07902 | 8  | 0.938959 | 0.239285714  | 0.239285714  |
| Q8BJY1   | Psmd5 Kiaa0072      | 26S proteasome non-ATPase regulator      | 0.2667829  | 0.212171 | 1.25739  | 8  | 0.244075 | 0.265217391  | 0.265217391  |
| Q8BJZ4   | Mrps35              | Small ribosomal subunit protein mS35     | -0.3992966 | 0.31913  | -1.2512  | 8  | 0.246209 | 0.3          | 0.3          |
| Q8BK30   | Ndufv3              | NADH dehydrogenase [ubiquinone] fla      | -0.5384382 | 0.311404 | -1.72906 | 7  | 0.127424 | 0.5333333333 | 0.4333333333 |
| Q9D1F4   | Akt1s1 Pras         | Proline-rich AKT1 substrate 1 (Proline-  | 0.2688203  | 0.057956 | 4.63838  | 2  | 0.043472 | 0.6          | 0            |

|          |                    |                                                |            |          |          |    |          |             |             |
|----------|--------------------|------------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8BK58   | Hspbap1 Pass1      | HSPB1-associated protein 1 (27 kDa h           | 0.1712716  | 0.370703 | 0.46202  | 8  | 0.656373 | 0.4         | 0.4         |
| Q8BK63   | Csnk1a1            | Casein kinase I isoform alpha (CKI- $\alpha$ ) | -0.0895971 | 0.51319  | -0.17459 | 8  | 0.86574  | 0.4         | 0.4         |
| Q8BK64   | Ahsa1              | Activator of 90 kDa heat shock protein         | 0.0515896  | 0.095645 | 0.53939  | 8  | 0.604303 | 0.239130435 | 0.239130435 |
| Q8BK67   | Rcc2 Kiaa1470      | Protein RCC2                                   | -0.147259  | 0.126026 | -1.16848 | 8  | 0.276251 | 0.173333333 | 0.173333333 |
| Q8BK72   | Mrps27             | Small ribosomal subunit protein mS27           | 0.6304796  | 0.654705 | 0.963    | 7  | 0.367627 | 0.25        | 0.15        |
| Q8BK77   | Tor1aip2 Ifrg15    | Uncharacterized protein                        | 0.2206208  | 0.318393 | 0.69292  | 8  | 0.507972 | 0.4         | 0.4         |
| Q8BKC5   | Ipo5 Kpnb3 Ranbp5  | Importin-5 (Imp5) (Importin subunit b          | -0.0760251 | 0.207117 | -0.36706 | 8  | 0.723091 | 0.208333333 | 0.208333333 |
| Q8BKC8-2 | Pi4kb Pik4cb       | Phosphatidylinositol 4-kinase beta (PI         | -0.6982334 | 0.517479 | -1.3493  | 6  | 0.225929 | 0.533333333 | 0.333333333 |
| Q7TPE5   | Slc7a6os           | Probable RNA polymerase II nuclear loc         | 0.2647131  | 0.097749 | 2.70808  | 8  | 0.026737 | 0.4         | 0.4         |
| Q8BKG3   | Ptk7               | Inactive tyrosine-protein kinase 7 (Pro        | -0.1332042 | 0.103514 | -1.28682 | 8  | 0.234141 | 0.34516129  | 0.34516129  |
| Q8BKI2   | Tnrc6b Kiaa1093    | Trinucleotide repeat-containing gene 6         | -0.1938917 | 0.499588 | -0.3881  | 6  | 0.711336 | 0.525       | 0.325       |
| Q8BKS9   | Pum3 D19Bwg1357    | Pumilio homolog 3                              | 0.3432908  | 0.311379 | 1.10249  | 8  | 0.302309 | 0.444444444 | 0.444444444 |
| Q8BKT3   | Gcfc2 Gcf Tcf9     | Intron Large complex component GCF             | 0.4019093  | 0.583143 | 0.68921  | 4  | 0.528586 | 0.4         | 0           |
| Q8BKT7   | Thoc5 Fmip Kiaa098 | THO complex subunit 5 homolog (Fms             | -0.0107025 | 0.214825 | -0.04982 | 8  | 0.961487 | 0.355555556 | 0.355555556 |
| Q8BKV1   | Gpc2               | Glypican-2 [Cleaved into: Secreted glyp        | 0.521414   | 0.315213 | 1.65417  | 8  | 0.136691 | 0.353333333 | 0.353333333 |
| Q8BKZ9   | Pdhx               | Pyruvate dehydrogenase protein X con           | 0.3618868  | 0.392832 | 0.92122  | 8  | 0.383873 | 0.325       | 0.325       |
| Q8BL48   | Unk Kiaa1753 Zc3h1 | RING finger protein unkempt homolog            | -0.068717  | 0.313597 | -0.21912 | 8  | 0.83204  | 0.4         | 0.4         |
| Q8BL66   | Eea1               | Early endosome antigen 1                       | 0.8472733  | 0.441712 | 1.91816  | 8  | 0.091375 | 0.444444444 | 0.444444444 |
| Q8BL74   | Gtf3c2 Kiaa0011    | General transcription factor 3C polype         | 0.3134417  | 0.147194 | 2.12944  | 8  | 0.06585  | 0.427272727 | 0.427272727 |
| Q8BL97   | Srsf7 Sfrs7        | Serine/arginine-rich splicing factor 7 (S      | -0.0519142 | 0.024963 | -2.07966 | 8  | 0.071153 | 0.114285714 | 0.114285714 |
| Q8BLB7   | L3mbtl3 Mbt1       | Lethal(3)malignant brain tumor-like pr         | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q8BLH7   | Hirip3             | HIRA-interacting protein 3                     | 0.3324588  | 0.404673 | 0.82155  | 8  | 0.435132 | 0.353846154 | 0.353846154 |
| Q8BLK3   | Lsmp               | Limbic system-associated membrane p            | 1.5856074  | 2.308246 | 0.68693  | 1  | 0.616818 | 0.7         | 0           |
| Q8BLN5   | Lss                | Lanosterol synthase (EC 5.4.99.7) (2,3         | -0.1440018 | 0.237246 | -0.60697 | 8  | 0.560697 | 0.3         | 0.3         |
| Q8BM39   | Prpf18 Prp18       | Pre-mRNA-splicing factor 18 (PRP18 h           | 0.1957282  | 1.03234  | 0.1896   | 4  | 0.858857 | 0.5         | 0.1         |
| Q8BM55   | Tmem214            | Transmembrane protein 214                      | -0.1085111 | 0.234832 | -0.46208 | 5  | 0.663434 | 0.7         | 0.4         |
| Q8BM72   | Hspa13 Stch        | Heat shock 70 kDa protein 13 (Microsc          | -0.1198402 | 0.28806  | -0.41602 | 8  | 0.688328 | 0.383333333 | 0.383333333 |
| Q8BMA5   | Npat               | Protein NPAT                                   | -0.5111776 | 0.453113 | -1.12815 | 1  | 0.461712 | 0.7         | 0           |
| Q8BMA6   | Srp68              | Signal recognition particle subunit SRF        | 0.4475834  | 0.329515 | 1.35831  | 8  | 0.211427 | 0.488888889 | 0.488888889 |
| Q6P1F6   | Ppp2r2a            | Serine/threonine-protein phosphatase           | 0.246552   | 0.098392 | 2.50582  | 8  | 0.036608 | 0.25        | 0.25        |
| Q8BMB3   | Eif4e2 Eif4el3     | Eukaryotic translation initiation factor       | 0.1328785  | 0.573218 | 0.23181  | 1  | 0.854985 | 0.7         | 0           |
| Q8BMC4   | Nop9               | Nucleolar protein 9 (Pumilio domain-c          | -0.3468669 | 0.464019 | -0.74753 | 8  | 0.476141 | 0.533333333 | 0.533333333 |
| Q8BMF4   | Dlat               | Dihydrolipoyllysine-residue acetyltrans        | 0.2749124  | 0.165926 | 1.65684  | 8  | 0.136142 | 0.24        | 0.24        |
| Q8BMG7   | Rab3gap2 Kiaa0839  | Rab3 GTPase-activating protein non-c $\alpha$  | -0.310123  | 0.453398 | -0.684   | 2  | 0.564594 | 0.6         | 0           |
| Q8BMI3   | Gga3 Kiaa0154      | ADP-ribosylation factor-binding protei         | 0.4127798  | 0.313157 | 1.31813  | 7  | 0.228955 | 0.633333333 | 0.533333333 |
| Q8BMJ2   | Lars1 Lars         | Leucine--tRNA ligase, cytoplasmic (EC          | 0.0102124  | 0.123792 | 0.0825   | 8  | 0.936279 | 0.3         | 0.3         |
| Q8BMJ3   | Eif1ax Eif1ay      | Eukaryotic translation initiation factor       | 0.2655916  | 0.441751 | 0.60123  | 8  | 0.564333 | 0.3         | 0.3         |
| Q8BMK1   | Mettl2 D11Ertd768  | tRNA N(3)-methylcytidine methyltrans           | -0.0344211 | 0.319154 | -0.10785 | 1  | 0.931604 | 0.7         | 0           |

|        |                    |                                           |            |          |          |   |          |             |             |
|--------|--------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8BMK4 | Ckap4              | Cytoskeleton-associated protein 4 (63     | 0.0764958  | 0.184948 | 0.41361  | 8 | 0.690027 | 0.263333333 | 0.263333333 |
| Q8BML9 | Qars1 Qars         | Glutamine--tRNA ligase (EC 6.1.1.18) (    | -0.0745409 | 0.217963 | -0.34199 | 8 | 0.74117  | 0.341304348 | 0.341304348 |
| Q8BMP6 | Acdb3 Gcp60 Pap7   | Golgi resident protein GCP60 (Acyl-Cc     | -0.1554424 | 0.137057 | -1.13414 | 8 | 0.289574 | 0.484615385 | 0.484615385 |
| Q8BMQ2 | Gtf3c4             | General transcription factor 3C polype    | -0.1099874 | 0.198049 | -0.55535 | 8 | 0.593837 | 0.49        | 0.49        |
| Q8BMS1 | Hadha              | Trifunctional enzyme subunit alpha, m     | 0.0129273  | 0.087776 | 0.14728  | 8 | 0.886558 | 0.317647059 | 0.317647059 |
| Q8BMS9 | Rassf2 Kiaa0168    | Ras association domain-containing pro     | -0.0311836 | 0.393537 | -0.07924 | 8 | 0.938789 | 0.5125      | 0.5125      |
| Q8BN78 | Zbtb33 Kaiso       | Transcriptional regulator Kaiso (Zinc fir | -0.7545174 | 0.833517 | -0.90522 | 3 | 0.432077 | 0.5         | 0           |
| Q8BNE1 | Tcaf1 Fam115a Kiaa | TRPM8 channel-associated factor 1 (TF     | -0.0435747 | 0.323422 | -0.13473 | 8 | 0.896153 | 0.45        | 0.45        |
| Q91ZX7 | Lrp1 A2mr          | Prolow-density lipoprotein receptor-re    | 0.2419807  | 0.071672 | 3.37621  | 8 | 0.009696 | 0.4         | 0.4         |
| Q8BNW9 | Kbtbd11 Kiaa0711   | Kelch repeat and BTB domain-containi      | -0.276557  | 0.263544 | -1.04938 | 8 | 0.32467  | 0.6         | 0.6         |
| Q8BNY6 | Ncs1 Freq          | Neuronal calcium sensor 1 (NCS-1) (Fi     | 0.2786764  | 0.626566 | 0.44477  | 5 | 0.67508  | 0.6         | 0.3         |
| Q8BP00 | lqcb1 Kiaa0036     | IQ calmodulin-binding motif-containin     | -0.0677314 | 0.135399 | -0.50024 | 5 | 0.638144 | 0.6         | 0.3         |
| Q8BP27 | Sfr1 Mei5 Meir5    | Swi5-dependent recombination DNA r        | 0.0456468  | 0.305092 | 0.14962  | 8 | 0.88477  | 0.3         | 0.3         |
| Q8BP43 | Tpm1               | Tropomyosin alpha-1 chain (Alpha-tro      | -0.5973596 | 0.611991 | -0.97609 | 3 | 0.401006 | 0.5         | 0           |
| Q8BP47 | Nars1 Nars         | Asparagine--tRNA ligase, cytoplasmic (l   | -0.2298897 | 0.172558 | -1.33224 | 8 | 0.21948  | 0.173913043 | 0.173913043 |
| Q8BP67 | Rpl24              | Large ribosomal subunit protein eL24 (    | 0.082873   | 0.611298 | 0.13557  | 8 | 0.895511 | 0.31        | 0.31        |
| Q8BP69 | Sall2              | C2H2-type domain-containing protein       | 0.4175591  | 0.356549 | 1.17111  | 8 | 0.275251 | 0.533333333 | 0.533333333 |
| Q8BP71 | Rbfox2 Fox2 Fxh Hr | RNA binding protein fox-1 homolog 2       | 0.0387676  | 0.201319 | 0.19257  | 8 | 0.852096 | 0.4125      | 0.4125      |
| Q8BP92 | Rcn2               | Reticulocalbin-2 (Taipoxin-associated     | 0.5907724  | 0.522615 | 1.13042  | 8 | 0.29105  | 0.34137931  | 0.34137931  |
| Q8BPK2 | Zcchc3             | Zinc finger CCHC domain-containing p      | -0.3017014 | 0.24983  | -1.20763 | 8 | 0.261678 | 0.47        | 0.47        |
| Q8BPM2 | Map4k5             | Mitogen-activated protein kinase kinase   | -0.4080579 | 0.341995 | -1.19317 | 8 | 0.266986 | 0.65        | 0.65        |
| Q8BQ30 | Ppp1r18            | Phostensin (Protein phosphatase 1 F-      | -0.1574193 | 0.216017 | -0.72874 | 8 | 0.486946 | 0.425       | 0.425       |
| Q8BQ46 | Taf15              | TAF15 RNA polymerase II, TATA box bin     | 0.4107273  | 0.349433 | 1.17541  | 8 | 0.273625 | 0.361538462 | 0.361538462 |
| Q8BQ47 | Cnpy4 Prat4b       | Protein canopy homolog 4 (Protein as      | 0.2460108  | 0.232892 | 1.05633  | 8 | 0.32167  | 0.411111111 | 0.411111111 |
| Q8BQM4 | Heatr3             | HEAT repeat-containing protein 3          | -0.1905327 | 0.364382 | -0.52289 | 8 | 0.615218 | 0.166666667 | 0.166666667 |
| Q8BQN6 | Znf146 Ozf Zfp146  | Zinc finger protein OZF (Only zinc finge  | -0.2541823 | 0.317498 | -0.80058 | 5 | 0.459708 | 0.3         | 0           |
| Q8BQZ4 | Ralgapb Kiaa1219   | Ral GTPase-activating protein subunit l   | -0.0972223 | 0.743527 | -0.13076 | 5 | 0.901065 | 0.666666667 | 0.666666667 |
| Q8BR07 | Bicd1              | Protein bicaudal D homolog 1 (Bic-D 1     | -0.4458688 | 0.103715 | -4.29899 | 1 | 0.145498 | 0.7         | 0           |
| Q8BR65 | Suds3 Sds3         | Sin3 histone deacetylase corepressor c    | -0.2323106 | 0.136425 | -1.70285 | 4 | 0.163807 | 0.4         | 0           |
| Q8BR90 | Rimoc1 AW549877    | RAB7A-interacting MON1-CCZ1 compl         | 0.0353828  | 0.200655 | 0.17634  | 7 | 0.865023 | 0.525       | 0.425       |
| Q8BRF7 | Scfd1 Stxbp112     | Sec1 family domain-containing protein     | 0.3370938  | 0.258914 | 1.30195  | 8 | 0.229167 | 0.352941176 | 0.352941176 |
| Q8BRG8 | Tmem209            | Transmembrane protein 209                 | -0.0820289 | 0.779989 | -0.10517 | 4 | 0.921306 | 0.6         | 0.2         |
| Q8BRM2 | Gorab Ntklbp1 Scyl | RAB6-interacting golgin (N-terminal kin   | 0.1817847  | 0.147017 | 1.23649  | 3 | 0.304256 | 0.65        | 0.15        |
| Q8BRN9 | Cc2d1b Kiaa1836    | Coiled-coil and C2 domain-containing      | 0.6981685  | 2.490118 | 0.28038  | 1 | 0.825976 | 0.7         | 0           |
| Q8BRT1 | Clasp2 Kiaa0627    | CLIP-associating protein 2 (Cytoplasm     | 0.0965515  | 0.152161 | 0.63453  | 8 | 0.543448 | 0.447619048 | 0.447619048 |
| Q8BSI6 | R3hcc1             | R3H and coiled-coil domain-containin      | 0.1086334  | 0.497831 | 0.21821  | 8 | 0.832726 | 0.4875      | 0.4875      |
| P47753 | Capza1 Cappa1      | F-actin-capping protein subunit alpha-    | 0.2413157  | 0.099659 | 2.4214   | 8 | 0.041759 | 0.2         | 0.2         |
| Q8BSL7 | Arf2               | ADP-ribosylation factor 2                 | 0.8539176  | 0.670815 | 1.27296  | 5 | 0.259008 | 0.3         | 0           |

|            |                   |                                          |            |          |          |   |          |             |             |
|------------|-------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8BSN5     | Phf23             | PHD finger protein 23 (PDH-containin     | 0.1894551  | 0.110663 | 1.712    | 8 | 0.125255 | 0.4         | 0.4         |
| Q8BSP2     | Ncaph2 D15Erd78   | Condensin-2 complex subunit H2 (Kle      | 0.0344201  | 0.247086 | 0.1393   | 8 | 0.892653 | 0.533333333 | 0.533333333 |
| Q8BSQ9     | Pbrm1 Baf180 Pb1  | Protein polybromo-1 (BRG1-associate      | -0.0330948 | 0.201519 | -0.16423 | 8 | 0.873626 | 0.432142857 | 0.432142857 |
| Q8BSY0     | Asph Bah          | Aspartyl/asparaginyl beta-hydroxylase    | -0.1897446 | 0.496646 | -0.38205 | 8 | 0.712372 | 0.4875      | 0.4875      |
| Q8BT07     | Cep55             | Centrosomal protein of 55 kDa (Cep5      | 0.0001413  | 0.277736 | 0.00051  | 8 | 0.999606 | 0.5         | 0.5         |
| Q8BT14-2   | Cnot4 Not4        | CCR4-NOT transcription complex sub       | -0.1330045 | 0.252312 | -0.52714 | 6 | 0.617007 | 0.633333333 | 0.433333333 |
| Q8BT60     | Cpne3 Kiaa0636    | Copine-3 (Copine III)                    | -0.1148898 | 0.200555 | -0.57286 | 8 | 0.582479 | 0.288888889 | 0.288888889 |
| Q8BT63     | Thg1l             | tRNA(His) guanylyltransferase (EC 2.7.   | -0.5398325 | 0.333724 | -1.6176  | 3 | 0.204176 | 0.5         | 0           |
| Q8BTG7     | NdrG4 Kiaa1180 Nd | Protein NDRG4 (N-myc downstream-r        | 0.8517445  | 0.598418 | 1.42333  | 3 | 0.249816 | 0.65        | 0.15        |
| Q8BTH6     | Scrt2             | Transcriptional repressor scratch 2 (Sc  | 0.2208395  | 0.55114  | 0.4007   | 8 | 0.699132 | 0.325       | 0.325       |
| Q8BTI8     | Srrm2 Kiaa0324    | Serine/arginine repetitive matrix protei | 0.1847106  | 0.177551 | 1.04032  | 8 | 0.328607 | 0.309615385 | 0.309615385 |
| Q8BTM8     | Flna Fln Fln1     | Filamin-A (FLN-A) (Actin-binding prote   | -0.1505104 | 0.124206 | -1.21178 | 8 | 0.260171 | 0.241614907 | 0.241614907 |
| Q8BTR5     | Dusp28            | Dual specificity phosphatase 28 (EC 3    | 0.6265688  | 0.67856  | 0.92338  | 7 | 0.386531 | 0.1         | 0           |
| Q8BTS0     | Ddx5              | Probable ATP-dependent RNA helicase      | -0.0521524 | 0.104476 | -0.49918 | 8 | 0.631089 | 0.256363636 | 0.256363636 |
| Q8BTS4     | Nup54             | Nuclear pore complex protein Nup54 (     | 0.2392376  | 0.192487 | 1.24288  | 8 | 0.249105 | 0.45        | 0.45        |
| Q8BTU1     | Cfap20 Gtl3       | Cilia- and flagella-associated protein 2 | -0.2245356 | 0.291773 | -0.76955 | 6 | 0.470765 | 0.4         | 0.2         |
| Q8BTV2     | Cpsf7             | Cleavage and polyadenylation specifi     | 0.1784408  | 0.204798 | 0.8713   | 8 | 0.408974 | 0.44        | 0.44        |
| Q9D1A2     | Cndp2 Cn2         | Cytosolic non-specific dipeptidase (EC   | 0.2325526  | 0.082391 | 2.82255  | 8 | 0.022406 | 0.312121212 | 0.312121212 |
| Q8BTW9     | Pak4 Kiaa1142     | Serine/threonine-protein kinase PAK 4    | 0.1522068  | 0.276546 | 0.55039  | 7 | 0.59917  | 0.5         | 0.4         |
| Q8BTX9     | Hsd1l             | Inactive hydroxysteroid dehydrogenase    | -0.1615953 | 0.448887 | -0.35999 | 8 | 0.728172 | 0.425       | 0.425       |
| Q8BTY2     | Slc4a7 Nbc3       | Sodium bicarbonate cotransporter 3 (     | 0.2321256  | 0.657419 | 0.35309  | 4 | 0.741845 | 0.4         | 0           |
| Q8BTZ4     | Anapc5 MNCb-277   | Anaphase-promoting complex subunit       | -0.14511   | 0.484246 | -0.29966 | 8 | 0.772073 | 0.482352941 | 0.482352941 |
| Q8BTZ5     | Ankrd46           | Ankyrin repeat domain-containing prot    | -0.1793866 | 0.285496 | -0.62833 | 5 | 0.557366 | 0.3         | 0           |
| Q8BTZ7     | Gmppb             | Mannose-1-phosphate guanylyltransfer     | 0.0512174  | 0.287625 | 0.17807  | 8 | 0.863095 | 0.44        | 0.44        |
| Q8BU03     | Pwp2 Pwp2h        | Periodic tryptophan protein 2 homolo     | -0.3475564 | 0.566599 | -0.61341 | 6 | 0.562124 | 0.433333333 | 0.233333333 |
| Q8BU04     | Ubr7              | Putative E3 ubiquitin-protein ligase UE  | 0.1502607  | 0.370216 | 0.40587  | 8 | 0.695475 | 0.371428571 | 0.371428571 |
| Q8BU11     | Tox4              | TOX high mobility group box family me    | 0.1570136  | 0.145128 | 1.0819   | 1 | 0.47497  | 0.7         | 0           |
| Q8BU14     | Sec62 Tloc1       | Translocation protein SEC62 (Transloc    | 0.2900471  | 0.706068 | 0.41079  | 8 | 0.692008 | 0.35        | 0.35        |
| Q8BU30     | Iars1 Iars        | Isoleucine--tRNA ligase, cytoplasmic (E  | -0.2442589 | 0.179284 | -1.36241 | 8 | 0.210184 | 0.310204082 | 0.310204082 |
| Q8BU31     | Rap2c             | Ras-related protein Rap-2c (EC 3.6.5.2   | 0.1014503  | 0.319166 | 0.31786  | 8 | 0.758729 | 0.3         | 0.3         |
| Q8BU36     | Supt3 Supt3h      | Transcription initiation protein SPT3 h  | 0.1972611  | 0.335261 | 0.58838  | 3 | 0.597638 | 0.65        | 0.15        |
| Q8BU88     | Mrpl22            | Large ribosomal subunit protein uL22r    | 0.302326   | 0.45089  | 0.67051  | 8 | 0.521415 | 0.4         | 0.4         |
| Q8BUH8     | Senp7 Kiaa1707 Su | Sentrin-specific protease 7 (EC 3.4.22   | -0.2687844 | 0.217242 | -1.23726 | 8 | 0.251075 | 0.3125      | 0.3125      |
| Q8BUI3     | LRWD1 Orca        | Leucine-rich repeat and WD repeat-con    | 0.0967787  | 0.384202 | 0.2519   | 6 | 0.809528 | 0.3         | 0.1         |
| Q8BUR4     | Dock1             | Dedicator of cytokinesis protein 1 (18   | 0.3283839  | 0.565964 | 0.58022  | 8 | 0.577739 | 0.333333333 | 0.333333333 |
| Q8BUV3     | Gphn              | Gephyrin [Includes: Molybdopterine ade   | 0.2155938  | 0.1786   | 1.20713  | 8 | 0.261859 | 0.38125     | 0.38125     |
| Q8BV13     | Cops7b Csn7b      | COP9 signalosome complex subunit 7       | 0.1374955  | 0.118852 | 1.15687  | 8 | 0.280701 | 0.35        | 0.35        |
| A0A345IT93 | env               | Envelope polyprotein                     | 0.2293914  | 0.074042 | 3.09814  | 6 | 0.021167 | 0.6         | 0.4         |

|          |         |          |         |                                          |            |          |          |   |          |             |             |
|----------|---------|----------|---------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8BVE8   | Nsd2    | Kiaa1090 | Whs     | Histone-lysine N-methyltransferase NS    | -0.1221586 | 0.179887 | -0.67908 | 8 | 0.516246 | 0.406060606 | 0.406060606 |
| Q8BVF2   | Pdcl3   | Viaf1    |         | Phosducin-like protein 3 (Viral IAP-ass  | 0.0998751  | 0.160693 | 0.62153  | 8 | 0.551547 | 0.2375      | 0.2375      |
| Q8BVG4   | Dpp9    |          |         | Dipeptidyl peptidase 9 (DP9) (EC 3.4.1   | -0.1399486 | 0.316509 | -0.44216 | 7 | 0.67171  | 0.5         | 0.4         |
| Q8BVI4   | Qdpr    | Dhpr     |         | Dihydropteridine reductase (EC 1.5.1.4   | -0.0316818 | 0.124475 | -0.25452 | 8 | 0.805512 | 0.14        | 0.14        |
| Q8BVL3   | Snx17   |          |         | Sorting nexin-17                         | 0.2375027  | 0.280335 | 0.84721  | 8 | 0.421499 | 0.433333333 | 0.433333333 |
| Q8BVQ5   | Ppme1   | Pme1     |         | Protein phosphatase methylesterase 1     | 0.2407832  | 0.113065 | 2.1296   | 8 | 0.065834 | 0.272222222 | 0.272222222 |
| Q8BVU0   | Lrch3   |          |         | DISP complex protein LRCH3 (Leucine      | -0.0713842 | 0.100072 | -0.71333 | 8 | 0.495921 | 0.5         | 0.5         |
| Q8BVU5   | Nudt9   |          |         | ADP-ribose pyrophosphatase, mitoch       | 0.8402627  | 0.65009  | 1.29253  | 7 | 0.237199 | 0.55        | 0.45        |
| Q8BVY0   | Rsl1d1  |          |         | Ribosomal L1 domain-containing prot      | 0.1464016  | 0.18985  | 0.77115  | 8 | 0.462786 | 0.338888889 | 0.338888889 |
| Q8BW10   | Nob1    |          |         | RNA-binding protein NOB1 (EC 3.1.-.-)    | 0.3100827  | 0.317842 | 0.97559  | 8 | 0.357842 | 0.42        | 0.42        |
| Q8BW22   | Ss18l1  | Crest    | Kiaa006 | Calcium-responsive transactivator (SS    | -0.0815196 | 0.612035 | -0.13319 | 3 | 0.902472 | 0.5         | 0           |
| Q8BW72   | Kdm4a   | Jhdm3a   | Jmjc    | Lysine-specific demethylase 4A (EC 1.1   | -0.9317512 | 0.796228 | -1.17021 | 6 | 0.286291 | 0.6         | 0.4         |
| Q8BWF0   | Aldh5a1 |          |         | Succinate-semialdehyde dehydrogenas      | 0.0113808  | 0.211522 | 0.0538   | 8 | 0.958411 | 0.407692308 | 0.407692308 |
| Q8BWG8   | Arrb1   |          |         | Beta-arrestin-1 (Arrestin beta-1)        | 0.5046093  | 0.339583 | 1.48597  | 8 | 0.175594 | 0.4         | 0.4         |
| Q8BWM0   | Ptges2  | Gbf1     | Pges2   | Prostaglandin E synthase 2 (EC 5.3.99    | 0.3509095  | 0.248529 | 1.41195  | 8 | 0.195659 | 0.25        | 0.25        |
| Q8BWT1   | Acaa2   |          |         | 3-ketoacyl-CoA thiolase, mitochondria    | -0.1128854 | 0.145309 | -0.77686 | 8 | 0.459591 | 0.225       | 0.225       |
| Q8BWW4   | Larp4   |          |         | La-related protein 4 (La ribonucleopro   | 0.0513456  | 0.268064 | 0.19154  | 8 | 0.852873 | 0.455555556 | 0.455555556 |
| Q8BWW9   | Pkn2    | Prk2     | Prkcl2  | Serine/threonine-protein kinase N2 (E    | -0.623576  | 0.456594 | -1.36571 | 8 | 0.209188 | 0.4         | 0.4         |
| Q8BWY3   | Etf1    |          |         | Eukaryotic peptide chain release factor  | 0.0076919  | 0.181643 | 0.04235  | 8 | 0.967261 | 0.333333333 | 0.333333333 |
| Q8BWY9   | Cip2a   | Kiaa1524 |         | Protein CIP2A (Cancerous inhibitor of    | -0.0815639 | 0.273068 | -0.29869 | 8 | 0.772785 | 0.557142857 | 0.557142857 |
| Q8BWZ3   | Naa25   | Mdm20    |         | N-alpha-acetyltransferase 25, NatB au    | 0.0036577  | 0.364069 | 0.01005  | 8 | 0.99223  | 0.4         | 0.4         |
| Q8BX09   | Rbbp5   |          |         | Retinoblastoma-binding protein 5 (RBI    | 0.270885   | 0.302058 | 0.8968   | 8 | 0.396011 | 0.56        | 0.56        |
| Q8BX10-2 | Pgam5   |          |         | Serine/threonine-protein phosphatase     | -0.1693075 | 0.219626 | -0.77089 | 3 | 0.496921 | 0.5         | 0           |
| Q8BX10   | Pgam5   |          |         | Serine/threonine-protein phosphatase     | -0.3753187 | 0.298697 | -1.25652 | 5 | 0.264435 | 0.5         | 0.2         |
| Q8BX17   | Gemin5  |          |         | Gem-associated protein 5 (Gemin5)        | -0.0015822 | 0.324857 | -0.00487 | 8 | 0.996233 | 0.53        | 0.53        |
| Q8BX90   | Fndc3a  | D14Ert   | d45c    | Fibronectin type-III domain-containing   | -0.3851383 | 0.399483 | -0.96409 | 8 | 0.363234 | 0.5         | 0.5         |
| Q8BXA1   | Golim4  | Df10     | Golph   | Golgi integral membrane protein 4 (De    | 0.1547467  | 0.277231 | 0.55819  | 8 | 0.591991 | 0.4         | 0.4         |
| Q8BXC6   | Comm2   |          |         | COMM domain-containing protein 2         | -0.1148496 | 0.207619 | -0.55317 | 6 | 0.600133 | 0.2         | 0           |
| Q8BXJ2   | Trerf1  |          |         | Transcriptional-regulating factor 1 (Tra | 0.4219885  | 0.612487 | 0.68898  | 3 | 0.540342 | 0.55        | 0.05        |
| Q8B XK8  | Agap1   | Centg2   | Kiaa1   | Arf-GAP with GTPase, ANK repeat and l    | 0.0070545  | 0.234173 | 0.03013  | 8 | 0.976705 | 0.625       | 0.625       |
| Q8BXN9   | Tmem87a |          |         | Transmembrane protein 87A (Elkin1)       | 0.1738554  | 0.330331 | 0.52631  | 8 | 0.61295  | 0.3         | 0.3         |
| Q8BXV2   | Bri3bp  |          |         | BRI3-binding protein (I3-binding prote   | -0.6113523 | 0.321915 | -1.89911 | 7 | 0.099336 | 0.35        | 0.25        |
| Q8BXZ1   | Tmx3    | Kiaa1830 | Txn     | Protein disulfide-isomerase TMX3 (EC     | -0.3804466 | 0.361115 | -1.05353 | 8 | 0.322874 | 0.32        | 0.32        |
| Q8BY02   | Nkrf    | Nrf      |         | NF-kappa-B-repressing factor (NFkB-re    | -0.246893  | 0.055522 | -4.44673 | 1 | 0.140823 | 0.7         | 0           |
| Q8BY71   | Hat1    |          |         | Histone acetyltransferase type B cataly  | 0.0501736  | 0.258514 | 0.19408  | 8 | 0.850948 | 0.29375     | 0.29375     |
| Q8BY89   | Slc44a2 | Ctl2     |         | Choline transporter-like protein 2 (Sol  | -0.162379  | 0.293711 | -0.55285 | 7 | 0.597569 | 0.5         | 0.4         |
| Q8BYA0   | Tbcd    |          |         | Tubulin-specific chaperone D (Beta-tul   | -0.0739988 | 0.240023 | -0.3083  | 8 | 0.76573  | 0.41        | 0.41        |
| Q8BYB9   | Poglut1 | Clp46    | Ktelc   | Protein O-glucosyltransferase 1 (EC 2.   | 0.1111248  | 0.225804 | 0.49213  | 7 | 0.637685 | 0.4         | 0.3         |

|          |          |                                           |            |          |          |   |          |              |              |
|----------|----------|-------------------------------------------|------------|----------|----------|---|----------|--------------|--------------|
| Q8BYH7   | Tbc1d17  | TBC1 domain family member 17              | -0.0037711 | 0.151068 | -0.02496 | 5 | 0.98105  | 0.65         | 0.35         |
| Q8BYH8   | Chd9     | Chromodomain-helicase-DNA-binding         | 0.7190253  | 0.311056 | 2.31156  | 4 | 0.081892 | 0.7          | 0.3          |
| Q8BYK6   | Ythdf3   | YTH domain-containing family protein      | 0.1212728  | 0.177327 | 0.68389  | 8 | 0.513361 | 0.27         | 0.27         |
| Q8BYM5   | Nlgn3    | Neuroigin-3 (Gliotactin homolog)          | 0.415052   | 0.330079 | 1.25743  | 7 | 0.248923 | 0.5833333333 | 0.4833333333 |
| Q8BYN2   | Tubgcp4  | Gamma-tubulin complex component           | -0.3260624 | 0.46711  | -0.69804 | 2 | 0.557391 | 0.6          | 0            |
| Q8BYN3   | Itpk1    | Inositol-tetrakisphosphate 1-kinase (E    | 0.0204421  | 0.323459 | 0.0632   | 8 | 0.951159 | 0.36         | 0.36         |
| Q8BYN5   | Fsd1l    | FSD1-like protein (Coiled-coil domain-    | 0.0359217  | 0.115264 | 0.31165  | 8 | 0.763276 | 0.316666667  | 0.316666667  |
| Q8BYU6   | Tor1aip2 | Torsin-1A-interacting protein 2           | -0.266534  | 0.147291 | -1.80957 | 7 | 0.113286 | 0.4          | 0.3          |
| Q8BZ47   | Znf609   | Zinc finger protein 609                   | -0.0549186 | 0.177897 | -0.30871 | 8 | 0.765428 | 0.481818182  | 0.481818182  |
| Q8BZA9   | Tigar    | Fructose-2,6-bisphosphatase TIGAR (E      | 0.3050674  | 0.209672 | 1.45497  | 3 | 0.241674 | 0.5          | 0            |
| Q8BZH4   | Pogz     | Pogo transposable element with ZNF d      | -0.1273572 | 0.175562 | -0.72543 | 8 | 0.488864 | 0.422222222  | 0.422222222  |
| Q8BZQ7   | Anapc2   | Anaphase-promoting complex subunit        | -0.1278948 | 0.300534 | -0.42556 | 8 | 0.681646 | 0.472727273  | 0.472727273  |
| A2A8L5   | Ptpfr    | Receptor-type tyrosine-protein phospl     | 0.2176286  | 0.079288 | 2.74477  | 8 | 0.025262 | 0.484        | 0.484        |
| Q8BZW8   | Nhlrc2   | NHL repeat-containing protein 2           | -0.2693539 | 0.331017 | -0.81372 | 7 | 0.442602 | 0.522222222  | 0.422222222  |
| Q8BZX4-2 | Srek1    | Splicing regulatory glutamine/lysine-ric  | -0.0672956 | 0.269828 | -0.2494  | 8 | 0.809334 | 0.366666667  | 0.366666667  |
| Q8C000   | Gm5124   | Uncharacterized protein                   | 0.0533376  | 0.274194 | 0.19452  | 6 | 0.852184 | 0.5          | 0.3          |
| Q8C006   | Trim35   | ubiquitin-protein ligase TRIM35 (EC       | 0.0072037  | 0.346513 | 0.02079  | 7 | 0.983994 | 0.5          | 0.4          |
| Q8C052   | Map1s    | Microtubule-associated protein 1S (MA     | 0.0715189  | 0.096658 | 0.73991  | 8 | 0.480499 | 0.228571429  | 0.228571429  |
| Q8C078   | Camkk2   | Calcium/calmodulin-dependent protei       | 0.5031647  | 0.599009 | 0.84     | 2 | 0.489324 | 0.6          | 0            |
| Q8C079   | Strip1   | Striatin-interacting protein 1 (Protein F | 0.2290898  | 0.191691 | 1.1951   | 8 | 0.266271 | 0.4          | 0.4          |
| Q8C0C7   | Farsa    | Phenylalanine--tRNA ligase alpha subu     | -0.0058644 | 0.14077  | -0.04166 | 8 | 0.967791 | 0.188        | 0.188        |
| Q8C0D5   | Eftl1    | Elongation factor-like GTPase 1 (Elong    | -0.1980109 | 0.323331 | -0.61241 | 8 | 0.557269 | 0.555555556  | 0.555555556  |
| Q8C0D7   | Ing4     | Inhibitor of growth protein 4 (p29ING     | 0.5622106  | 0.299538 | 1.87692  | 6 | 0.109622 | 0.4          | 0.2          |
| Q8C0E2   | Vps26b   | Vacuolar protein sorting-associated pr    | 0.3456347  | 0.233488 | 1.48031  | 8 | 0.177061 | 0.2875       | 0.2875       |
| Q8C0E7   | ErbB2    | Receptor tyrosine-protein kinase erbB-    | -0.7297814 | 0.442729 | -1.64837 | 4 | 0.174622 | 0.4          | 0            |
| P27546   | Map4     | Microtubule-associated protein 4 (MAF     | 0.2012099  | 0.073941 | 2.72121  | 8 | 0.0262   | 0.308823529  | 0.308823529  |
| Q78ZA7   | Nap1l4   | Nucleosome assembly protein 1-like 4      | 0.1951761  | 0.063814 | 3.05851  | 8 | 0.015618 | 0.204347826  | 0.204347826  |
| Q8C0L0   | Tmx4     | Thioredoxin-related transmembrane pr      | 0.0264028  | 0.274687 | 0.09612  | 8 | 0.92579  | 0.3          | 0.3          |
| Q8C0L6   | Paox     | Peroxisomal N(1)-acetyl-spermine/spe      | -0.0583958 | 0.340991 | -0.17125 | 8 | 0.868277 | 0.3          | 0.3          |
| Q8C0L8   | Cog5     | Conserved oligomeric Golgi complex s      | 0.0087683  | 0.516684 | 0.01697  | 8 | 0.986876 | 0.433333333  | 0.433333333  |
| Q8C0M9   | Asrgl1   | Isoaspartyl peptidase/L-asparaginase (I   | 0.0045596  | 0.132584 | 0.03439  | 8 | 0.973409 | 0.242857143  | 0.242857143  |
| Q8C0Q2   | Zhx3     | Zinc fingers and homeoboxes protein 3     | 0.8096962  | 0.548402 | 1.47647  | 8 | 0.178064 | 0            | 0            |
| Q8C0V0   | Tlk1     | Serine/threonine-protein kinase touse     | -0.2115966 | 0.320219 | -0.66079 | 3 | 0.555961 | 0.65         | 0.15         |
| Q8C110   | Slitrk6  | SLIT and NTRK-like protein 6              | 0.4461541  | 0.335024 | 1.33171  | 2 | 0.314449 | 0.6          | 0            |
| Q8C145   | Slc39a6  | Zinc transporter ZIP6 (Endoplasmic ret    | -0.3016046 | 0.362209 | -0.83268 | 7 | 0.432512 | 0.333333333  | 0.233333333  |
| Q8C156   | Ncaph    | Condensin complex subunit 2 (Barren       | 0.0950164  | 0.194213 | 0.48924  | 8 | 0.637804 | 0.325        | 0.325        |
| Q8C163   | Exog     | Nuclease EXOG, mitochondrial (EC 3.1      | 0.3649467  | 0.250599 | 1.4563   | 8 | 0.183408 | 0.425        | 0.425        |
| Q8C166   | Cpne1    | Copine-1 (Copine I)                       | 0.1022092  | 0.192308 | 0.53149  | 8 | 0.609518 | 0.315384615  | 0.315384615  |

|        |                      |                                           |            |          |          |   |          |             |             |
|--------|----------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8C167 | Prepl Kiaa0436       | Prolyl endopeptidase-like (EC 3.4.21.-)   | -0.3586447 | 0.269771 | -1.32944 | 8 | 0.220362 | 0.433333333 | 0.433333333 |
| Q8C1A5 | Thop1                | Thimet oligopeptidase (EC 3.4.24.15)      | -0.0125035 | 0.052829 | -0.23668 | 8 | 0.818853 | 0.255882353 | 0.255882353 |
| Q8C1B1 | Camsap2 Camsap1l     | Calmodulin-regulated spectrin-associa     | 0.7972928  | 0.446978 | 1.78374  | 5 | 0.134545 | 0.625       | 0.325       |
| Q8C1B7 | Septin11 D5Ertd60    | Septin-11                                 | 0.1584387  | 0.363995 | 0.43528  | 8 | 0.674866 | 0.194117647 | 0.194117647 |
| Q8C1D8 | lws1 lws1l           | Protein IWS1 homolog (IWS1-like prot      | -0.0194143 | 0.143154 | -0.13562 | 8 | 0.895473 | 0.225       | 0.225       |
| Q8C1M2 | Znf428 Zfp428        | Zinc finger protein 428                   | 0.4085016  | 0.370455 | 1.1027   | 8 | 0.302221 | 0.216666667 | 0.216666667 |
| Q8C1S0 | Med19                | Mediator of RNA polymerase II transcri    | 0.4313267  | 0.229344 | 1.8807   | 8 | 0.096802 | 0.55        | 0.55        |
| Q8C1W1 | Vash1 Vash           | Tubuliny-Tyr carboxypeptidase 1 (EC :     | -0.2136289 | 0.217265 | -0.98327 | 7 | 0.358233 | 0.6         | 0.5         |
| Q8C1Y8 | Ccz1                 | Vacuolar fusion protein CCZ1 homolo       | 0.0579884  | 0.514576 | 0.11269  | 5 | 0.91466  | 0.55        | 0.25        |
| Q8C2Q3 | Rbm14                | RNA-binding protein 14 (RNA-binding       | 0.1040108  | 0.241255 | 0.43112  | 8 | 0.67776  | 0.239285714 | 0.239285714 |
| Q8C3I8 | Hgh1 Brp16 Fam20     | Protein HGH1 homolog                      | 0.0207372  | 0.207438 | 0.09997  | 8 | 0.922829 | 0.36        | 0.36        |
| Q8C3P7 | Mettl3 Mta70         | N6-adenosine-methyltransferase subu       | -0.0060329 | 0.324908 | -0.01857 | 7 | 0.985704 | 0.54        | 0.44        |
| Q8C3R1 | Brat1 Baat1          | BRCA1-associated ATM activator 1 (BR      | -0.5444331 | 0.257846 | -2.11146 | 1 | 0.281583 | 0.7         | 0           |
| Q8C3W1 |                      | Uncharacterized protein C1orf198 ho       | -0.1974632 | 0.42257  | -0.46729 | 6 | 0.65678  | 0.6         | 0.4         |
| Q9CQ22 | Lamtor1              | Ragulator complex protein LAMTOR1 (L      | 0.1251418  | 0.037471 | 3.33974  | 8 | 0.010235 | 0.37        | 0.37        |
| Q8C460 | Eri3 Pint1 Prnpip Pr | ERI1 exoribonuclease 3 (EC 3.1.-.-) (Pr   | 0.4339504  | 0.493426 | 0.87946  | 8 | 0.404792 | 0.475       | 0.475       |
| Q8C4B4 | Unc119b              | Protein unc-119 homolog B                 | -0.0363365 | 0.211769 | -0.17159 | 8 | 0.868024 | 0.2375      | 0.2375      |
| Q8C4J7 | Tbl3                 | Transducin beta-like protein 3            | -0.1059913 | 0.262398 | -0.40393 | 8 | 0.696845 | 0.516666667 | 0.516666667 |
| Q8C4Q6 | Aida                 | Axin interactor, dorsalization-associa    | -0.195084  | 0.270986 | -0.71991 | 7 | 0.494912 | 0.45        | 0.35        |
| Q80TE2 | Pcdh10 mKIAA140C     | MKIAA1400 protein                         | -0.1203928 | 0.00839  | -14.3489 | 1 | 0.044296 | 0.7         | 0           |
| Q8C4X2 | Csnk1g3              | Casein kinase I isoform gamma-3 (CKI-     | -0.1000957 | 0.280685 | -0.35661 | 6 | 0.733588 | 0.666666667 | 0.466666667 |
| P63073 | Eif4e                | Eukaryotic translation initiation factor  | -0.1250689 | 0.03895  | -3.21104 | 8 | 0.012405 | 0.04        | 0.04        |
| Q8C551 | Rad51ap1             | RAD51-associated protein 1 (RAB22)        | -0.037604  | 0.456061 | -0.08245 | 2 | 0.941795 | 0.7         | 0.1         |
| Q8C569 | Fam118b              | Protein FAM118B                           | 0.2576564  | 0.63273  | 0.40721  | 1 | 0.753813 | 0.7         | 0           |
| Q8C570 | Rae1 Mrnp41          | mRNA export factor (Rae1 protein hon      | 0.1269633  | 0.061485 | 2.06495  | 8 | 0.072798 | 0.34        | 0.34        |
| Q8C5B3 | Lamb3                | Uncharacterized protein                   | -0.1541334 | 0.165952 | -0.92878 | 2 | 0.451052 | 0.6         | 0           |
| Q8C5D8 | Pias2 Miz1 Piasx     | E3 SUMO-protein ligase PIAS2 (EC 2.3      | 0.4867721  | 0.445827 | 1.09184  | 6 | 0.316794 | 0.55        | 0.35        |
| Q8C5H3 | Rbbp7                | Histone-binding protein RBBP7 (Nucle      | 0.8096011  | 0.787918 | 1.02752  | 8 | 0.334238 | 0.15        | 0.15        |
| Q8C5H8 | Nadk2 Mnadk Nadkc    | NAD kinase 2, mitochondrial (EC 2.7.1     | -0.1627712 | 0.197085 | -0.82589 | 8 | 0.432803 | 0.42        | 0.42        |
| Q8C5L3 | Cnot2                | CCR4-NOT transcription complex sub        | 0.2494445  | 0.238053 | 1.04785  | 8 | 0.325329 | 0.418181818 | 0.418181818 |
| Q8C5N3 | Cwc22 Ncm            | Pre-mRNA-splicing factor CWC22 hor        | -0.441755  | 0.221631 | -1.9932  | 4 | 0.117022 | 0.55        | 0.15        |
| Q8C5Q4 | Grsf1                | G-rich sequence factor 1 (GRSF-1)         | 0.4181545  | 0.277594 | 1.50635  | 8 | 0.170399 | 0.366666667 | 0.366666667 |
| Q8C5R8 | Prps11l              | ribose-phosphate diphosphokinase (E       | 0.2612646  | 0.476529 | 0.54827  | 8 | 0.598471 | 0           | 0           |
| A2AJ72 | Fubp3                | Far upstream element (FUSE) binding p     | -0.1334617 | 0.046411 | -2.87562 | 8 | 0.02065  | 0.35        | 0.35        |
| Q8C5X6 | Fen1                 | Flap endonuclease 1 (FEN-1) (EC 3.1.-     | -0.1561939 | 0.113678 | -1.374   | 8 | 0.206705 | 0.23        | 0.23        |
| Q8C669 | Peli1                | E3 ubiquitin-protein ligase pellino hon   | 0.6804646  | 0.562655 | 1.20938  | 6 | 0.272002 | 0.5         | 0.3         |
| Q8C671 | Srsf2 Sfrs2          | Serine/arginine-rich splicing factor 2 (S | 0.3193931  | 0.181394 | 1.76077  | 8 | 0.11631  | 0.27        | 0.27        |
| Q8C6B9 | Rps19bp1 Aros        | Active regulator of SIRT1 (40S ribosom    | -0.2795381 | 0.162357 | -1.72175 | 6 | 0.135896 | 0.55        | 0.35        |

|          |                     |                                           |            |          |          |    |          |             |             |
|----------|---------------------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8C6E0   | Cfap36 Ccdc104      | Cilia- and flagella-associated protein 30 | 0.1683809  | 0.202914 | 0.82981  | 8  | 0.430708 | 0.383333333 | 0.383333333 |
| Q8C6P8   | Zfp57               | Zinc finger protein 57 (Zfp-57)           | -0.4275783 | 0.459408 | -0.93072 | 5  | 0.39472  | 0.55        | 0.25        |
| Q8C739   | Fam110b             | Protein FAM110B                           | 0.7941653  | 0.642584 | 1.23589  | 4  | 0.284116 | 0.6         | 0.2         |
| Q8C754   | Vps52               | Vacuolar protein sorting-associated pr    | -0.2796303 | 0.366311 | -0.76337 | 4  | 0.487783 | 0.4         | 0           |
| Q8C796   | Rcor2               | REST corepressor 2 (M-CoREST)             | 0.0126139  | 0.07843  | 0.16083  | 8  | 0.876215 | 0.36875     | 0.36875     |
| Q8C7D2   | Crbn                | Protein cereblon (Protein Pil)            | 0.1763147  | 0.487308 | 0.36181  | 4  | 0.735795 | 0.4         | 0           |
| Q8C7E9   | Cstf2t Kiaa0689     | Cleavage stimulation factor subunit 2 f   | 0.2227213  | 0.249892 | 0.89127  | 8  | 0.398796 | 0.438461538 | 0.438461538 |
| Q8C7K6   | Pcyox1l             | Prenylcysteine oxidase-like (EC 1.8.3.-)  | 0.4034645  | 0.310465 | 1.29955  | 8  | 0.229951 | 0.5         | 0.5         |
| Q8C7R4   | Uba6 Ube1l2         | Ubiquitin-like modifier-activating enzym  | -0.0728737 | 0.148579 | -0.49047 | 8  | 0.63697  | 0.403225806 | 0.403225806 |
| Q8C7V3   | Utp15               | U3 small nucleolar RNA-associated pro     | -0.0058867 | 0.351606 | -0.01674 | 8  | 0.987052 | 0.325       | 0.325       |
| Q8C7X2-2 | Emc1 Kiaa0090       | ER membrane protein complex subuni        | -0.1980629 | 0.266266 | -0.74385 | 8  | 0.478241 | 0.516666667 | 0.516666667 |
| Q8C827   | Zfp62               | Zinc finger protein 62 (Zfp-62) (ZT3)     | -0.0692105 | 0.759108 | -0.09117 | 8  | 0.929596 | 0.366666667 | 0.366666667 |
| Q8C845   | Efh2                | EF hand domain containing 2 (Efh2 p       | 0.2964867  | 0.300125 | 0.98788  | 8  | 0.352145 | 0.423076923 | 0.423076923 |
| Q8C854   | Myef2 Kiaa1341 Mef  | Myelin expression factor 2 (MEF-2) (My    | 0.0870673  | 0.211302 | 0.41205  | 8  | 0.691122 | 0.266666667 | 0.266666667 |
| Q8C863   | Itch                | E3 ubiquitin-protein ligase Itchy (EC 2   | 0.1363493  | 0.38778  | 0.35162  | 7  | 0.735473 | 0.62        | 0.52        |
| Q8C878   | Uba3 Ube1c          | NEDD8-activating enzyme E1 catalytic      | 0.2303235  | 0.120266 | 1.91512  | 8  | 0.091804 | 0.384210526 | 0.384210526 |
| Q8C8M1   | Sinhcaf Fam60a Ter  | SIN3-HDAC complex-associated factor       | 0.232902   | 0.341465 | 0.68207  | 2  | 0.565591 | 0.6         | 0           |
| Q8C8R3   | Ank2 AnkB           | Ankyrin-2 (ANK-2) (Ankyrin-B) (Brain a    | 0.1117775  | 0.098214 | 1.1381   | 8  | 0.288012 | 0.441176471 | 0.441176471 |
| Q8C9B9   | Dido1 Datf1 Dio1    | Death-inducer obliterator 1 (DIO-1) (D    | -0.04201   | 0.183968 | -0.22836 | 8  | 0.825099 | 0.386363636 | 0.386363636 |
| Q8C9V6   | Mpdu1               | Mannose-P-dolichol utilization defect     | 0.3792452  | 0.342006 | 1.10889  | 8  | 0.299699 | 0.333333333 | 0.333333333 |
| Q8CAA7   | Pgm2l1              | Glucose 1,6-bisphosphate synthase (E      | 0.2386793  | 0.42617  | 0.56006  | 8  | 0.590774 | 0.425       | 0.425       |
| Q8CAB7   | Fam98b              | Protein FAM98A                            | -0.5357233 | 0.282332 | -1.8975  | 1  | 0.308774 | 0.7         | 0           |
| Q8CAB8   | Castor2 Gats Gatsl2 | Cytosolic arginine sensor for mTORC1      | 1.0355139  | 1.400599 | 0.73934  | 2  | 0.536702 | 0.6         | 0           |
| Q8CAE9   | Podxl2              | Podocalyxin-like protein 2 (Endoglycar    | 1.9776255  | 0.347637 | 5.68877  | 1  | 0.110776 | 0.7         | 0           |
| Q8CAQ8   | Immt Mic60          | MICOS complex subunit Mic60 (Mitoch       | -0.28181   | 0.321971 | -0.87527 | 5  | 0.421478 | 0.55        | 0.25        |
| Q8CAV3   | Nrf1                | TGS domain-containing protein             | 0.1501003  | 0.084829 | 1.76944  | 8  | 0.114784 | 0.325       | 0.325       |
| Q8CAY6   | Acat2               | Acetyl-CoA acetyltransferase, cytosolic   | 0.1237057  | 0.275668 | 0.44875  | 8  | 0.665519 | 0.34        | 0.34        |
| Q8CB44   | Gramd4 Dip Kiaa071  | GRAM domain-containing protein 4 (D       | 0.5395945  | 0.637696 | 0.84616  | 1  | 0.552926 | 0.7         | 0           |
| Q8CB77   | Eloa Tceb3          | Elongin-A (EloA) (Elongin 110 kDa sub     | -1.500229  | 1.276524 | -1.17525 | 1  | 0.448822 | 0.7         | 0           |
| Q8CBC4   | Cnst                | Consortin                                 | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| Q8CBC7-2 | Ftsj1               | tRNA (cytidine(32)/guanosine(34))-2'-C    | -0.0705578 | 0.401899 | -0.17556 | 6  | 0.866414 | 0.2         | 0           |
| Q8CBE3   | Wdr37 Kiaa0982      | WD repeat-containing protein 37           | 0.5488367  | 0.931455 | 0.58923  | 6  | 0.577206 | 0.5         | 0.3         |
| Q8CBW3   | Abi1 Ssh3bp1        | Abl interactor 1 (Abelson interactor 1)   | -0.070201  | 0.120639 | -0.58191 | 8  | 0.576654 | 0.2         | 0.2         |
| Q8CBY8   | Dctn4               | Dynactin subunit 4 (Dynactin subunit      | 0.1546121  | 0.19929  | 0.77582  | 8  | 0.460175 | 0.38        | 0.38        |
| Q8CCB4   | Vps53               | Vacuolar protein sorting-associated pr    | 0.3848136  | 0.288858 | 1.33219  | 6  | 0.231162 | 0.6         | 0.4         |
| Q8CCF0   | Prpf31 Prp31        | U4/U6 small nuclear ribonucleoprotein     | 0.2102865  | 0.164395 | 1.27915  | 8  | 0.236695 | 0.347619048 | 0.347619048 |
| Q8CCI5   | Rybp Dedaf          | RING1 and YY1-binding protein (Death      | 0.0622829  | 0.382389 | 0.16288  | 4  | 0.878512 | 0.6         | 0.2         |
| Q8CCJ3   | Ufl1 Kiaa0776 Maxe  | E3 UFM1-protein ligase 1 (EC 2.3.2.-) (   | -0.4114511 | 0.392508 | -1.04826 | 4  | 0.353677 | 0.6         | 0.2         |

|          |                     |                                                            |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8CCJ4-2 | Amer2 Fam123a       | APC membrane recruitment protein 2 (APC2)                  | 0.129216   | 0.174469 | 0.74062  | 6 | 0.486883 | 0.2         | 0           |
| Q8CCK0   | MacroH2a2 H2afy2    | Core histone macro-H2A.2 (Histone H2A.2)                   | -0.0552569 | 0.151514 | -0.3647  | 8 | 0.724789 | 0.193333333 | 0.193333333 |
| Q8CCP0   | Nemf                | Ribosome quality control complex subunit 1 (RQC1)          | 0.2423443  | 0.476125 | 0.50899  | 7 | 0.626404 | 0.5         | 0.4         |
| Q8CCS6   | Pabpn1 Pab2 Pabp2   | Polyadenylate-binding protein 2 (PABP2)                    | 0.2601646  | 0.205433 | 1.26642  | 8 | 0.24099  | 0.273684211 | 0.273684211 |
| Q8CCT4   | Tceal5              | Transcription elongation factor A protein 5 (TEF5)         | 0.1545401  | 0.754322 | 0.20487  | 8 | 0.842788 | 0.4         | 0.4         |
| Q8CD15   | Riox2 Mina Mina53   | Ribosomal oxygenase 2 (Bifunctional)                       | -0.7294479 | 0.480332 | -1.51863 | 8 | 0.167336 | 0.483333333 | 0.483333333 |
| Q8CDA1   | Inpp5f Kiaa0966 Sa  | Phosphatidylinositol phosphatase SA                        | 0.1127288  | 0.268701 | 0.41953  | 1 | 0.747115 | 0.7         | 0           |
| Q8CDN6   | Txn1 Trp32 Txnl     | Thioredoxin-like protein 1 (32 kDa thiolase)               | -0.0498108 | 0.114923 | -0.43343 | 8 | 0.676155 | 0.145454545 | 0.145454545 |
| Q8CE64   | Znf276 Zfp276       | Zinc finger protein 276 (Zfp-276)                          | -0.5906868 | 0.427533 | -1.38162 | 1 | 0.398851 | 0.7         | 0           |
| Q8CE90   | Map2k7 Mkk7         | Dual specificity mitogen-activated protein kinase 7 (MKK7) | 1.0084237  | 0.714321 | 1.41172  | 8 | 0.195722 | 0           | 0           |
| Q8CE96   | Trmt6 Kiaa1153 Trm  | tRNA (adenine(58)-N(1))-methyltransferase 6 (TRMT6)        | -0.4156902 | 0.469588 | -0.88522 | 8 | 0.401859 | 0.5         | 0.5         |
| Q8CEC0   | Nup88               | Nuclear pore complex protein Nup88 (NUP88)                 | 0.3672164  | 0.364919 | 1.0063   | 8 | 0.343736 | 0.461538462 | 0.461538462 |
| Q5RJG1   | Nol10 Gm67          | Nucleolar protein 10 (NOL10)                               | -0.1426458 | 0.009922 | -14.3773 | 1 | 0.044208 | 0.7         | 0           |
| Q8CEE6   | Pask Kiaa0135       | PAS domain-containing serine/threonine kinase 1 (PASK)     | 0.2077162  | 0.232118 | 0.89487  | 5 | 0.411858 | 0.5         | 0.2         |
| Q8CES0   | Naa30 Mak3 Nat12    | N-alpha-acetyltransferase 30 (EC 2.3.1.18)                 | -0.2511024 | 0.229906 | -1.0922  | 8 | 0.306543 | 0.26        | 0.26        |
| Q8CEW7   | Zbed5 2410018M08    | Uncharacterized protein                                    | -0.1222635 | 0.131957 | -0.92654 | 8 | 0.381267 | 0.1         | 0.1         |
| Q8CF66   | Lamtor4             | Ragulator complex protein LAMTOR4 (LAMTOR4)                | 0.2855015  | 0.35047  | 0.81462  | 5 | 0.452326 | 0.65        | 0.35        |
| Q8CF89   | Tab1 Map3k7ip1      | TGF-beta-activated kinase 1 and MAP3K7IP1                  | 0.4181737  | 0.21861  | 1.91288  | 8 | 0.092122 | 0.4875      | 0.4875      |
| Q8CFC2   | Myt1 Kiaa0835 Nzf2  | Myelin transcription factor 1 (MyT1) (N)                   | 0.3809205  | 0.472603 | 0.806    | 8 | 0.443537 | 0.51        | 0.51        |
| Q8CFC7   | Clasrp Clasp Sfrs16 | CLK4-associating serine/arginine rich protein 16 (CLASRP)  | -0.3964196 | 0.594238 | -0.66711 | 6 | 0.52951  | 0.466666667 | 0.266666667 |
| Q8CFE2   | Hpf1                | Histone PARylation factor 1 (HPF1)                         | -0.0939662 | 0.11427  | -0.82232 | 8 | 0.434718 | 0.375       | 0.375       |
| Q8CFE3   | Rcor1 D12Wsu95e1    | REST corepressor 1 (Protein CoREST)                        | -0.552857  | 0.41516  | -1.33167 | 5 | 0.240446 | 0.566666667 | 0.266666667 |
| Q8CFE4   | Scyl2 Cvak104 D10   | SCY1-like protein 2 (Coated vesicle-associated)            | -0.4307604 | 0.231437 | -1.86124 | 8 | 0.09974  | 0.5         | 0.5         |
| Q8CFI2   | Cdc34 Ubch3 Ube2    | Ubiquitin-conjugating enzyme E2 R1 (UBCH3)                 | -0.3832665 | 0.301663 | -1.27051 | 6 | 0.250942 | 0.2         | 0           |
| Q8CFI7   | Polr2b              | DNA-directed RNA polymerase II subunit 2 (POLR2B)          | -0.1325601 | 0.227731 | -0.58209 | 8 | 0.576538 | 0.367857143 | 0.367857143 |
| Q8CFQ3   | Aqr Kiaa0560        | RNA helicase aquarius (EC 3.6.4.13) (AQR)                  | -0.196622  | 0.31526  | -0.62368 | 8 | 0.550201 | 0.558333333 | 0.558333333 |
| Q8CFV9   | Rfk                 | Riboflavin kinase (EC 2.7.1.26) (ATP:riboflavin)           | 0.0359795  | 0.583932 | 0.06162  | 8 | 0.95238  | 0.46        | 0.46        |
| Q8CG03   | Pde5a Pde5          | cGMP-specific 3',5'-cyclic phosphodiesterase 5 (PDE5)      | -0.6886503 | 0.407937 | -1.68813 | 4 | 0.166658 | 0.4         | 0           |
| Q8CG46   | Smc5 Kiaa0594 Smc   | Structural maintenance of chromosomes protein 5 (SMC5)     | 0.185511   | 0.679458 | 0.27303  | 7 | 0.792711 | 0.55        | 0.45        |
| Q8CG47   | Smc4 Capc Smc4l1    | Structural maintenance of chromosomes protein 4 (SMC4)     | 0.0642835  | 0.240358 | 0.26745  | 8 | 0.795889 | 0.328205128 | 0.328205128 |
| Q8CG48   | Smc2 Cape Fin16 S1  | Structural maintenance of chromosomes protein 2 (SMC2)     | 0.0120463  | 0.15059  | 0.07999  | 8 | 0.938207 | 0.334545455 | 0.334545455 |
| Q8CG72   | Adprs Adprh12 Arh3  | ADP-ribosylhydrolase ARH3 (ADP-ribosylhydrolase)           | 0.1744173  | 0.328186 | 0.53146  | 8 | 0.609537 | 0.34        | 0.34        |
| Q8CG76   | Akr7a2 Afar Akr7a5  | Aflatoxin B1 aldehyde reductase member 5 (AKR7A5)          | 0.1366235  | 0.194298 | 0.70316  | 8 | 0.5019   | 0.2375      | 0.2375      |
| Q8CG79   | Tp53bp2 Aspp2 Trp   | Apoptosis-stimulating of p53 protein 2 (TP53BP2)           | 0.1988954  | 0.217056 | 0.91633  | 4 | 0.411339 | 0.65        | 0.25        |
| Q8CGA0   | Ppm1f               | Protein phosphatase 1F (EC 3.1.3.16) (PPM1F)               | 0.4131099  | 0.343862 | 1.20138  | 8 | 0.263959 | 0.533333333 | 0.533333333 |
| Q8CGB9   | Ide                 | Insulin degrading enzyme (IDE)                             | 0.2413232  | 0.123365 | 1.95617  | 8 | 0.086167 | 0.335714286 | 0.335714286 |
| Q8CGC4   | Lsm14b Fam61b Ra    | Protein LSM14 homolog B (RNA-associated)                   | 0.1405492  | 0.150171 | 0.93593  | 8 | 0.376698 | 0.457142857 | 0.457142857 |
| Q8CGC6   | Rbm28               | RNA-binding protein 28 (RNA-binding protein 28)            | 0.4617912  | 0.203841 | 2.26545  | 5 | 0.072853 | 0.666666667 | 0.366666667 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8CGC7   | Eprs1 Eprs Qprs    | Bifunctional glutamate/proline--tRNA l   | -0.2209164 | 0.189179 | -1.16776 | 8 | 0.276525 | 0.280722892 | 0.280722892 |
| Q8CGE9   | Rgs12              | Regulator of G-protein signaling 12 (R   | -0.0631487 | 0.825791 | -0.07647 | 2 | 0.946006 | 0.7         | 0.1         |
| Q8CGF4   | Sec24c             | Sec24 related gene family, member C (    | -0.0422638 | 0.152714 | -0.27675 | 8 | 0.788987 | 0.4         | 0.4         |
| Q8CGF6   | Wdr47 Kiaa0893     | WD repeat-containing protein 47 (Neu     | 0.0730976  | 0.333504 | 0.21918  | 8 | 0.831998 | 0.533333333 | 0.533333333 |
| Q8CGF7   | Tcerg1 Taf2s       | Transcription elongation regulator 1 (F  | 0.1617898  | 0.257263 | 0.62889  | 8 | 0.546955 | 0.4         | 0.4         |
| Q8CGK3   | Lonp1 Prss15       | Lon protease homolog, mitochondrial      | 0.1407808  | 0.092564 | 1.52091  | 8 | 0.166775 | 0.388235294 | 0.388235294 |
| Q8CGN4   | Bcor Kiaa1575      | BCL-6 corepressor (BCoR)                 | 0.8604678  | 0.217349 | 3.95893  | 2 | 0.058281 | 0.6         | 0           |
| Q8CGP2-2 | Hist1h2bp          | Histone H2B type 1-P                     | 0.3201881  | 1.288585 | 0.24848  | 8 | 0.810022 | 0.2         | 0.2         |
| Q8CGP5   | Hist1h2af          | Histone H2A type 1-F                     | -0.343311  | 0.945625 | -0.36305 | 8 | 0.725972 | 0.366666667 | 0.366666667 |
| Q8CGY8-2 | Ogt                | UDP-N-acetylglucosamine--peptide N-      | 0.1000503  | 0.147895 | 0.6765   | 7 | 0.520445 | 0.3         | 0.2         |
| Q8CGY8   | Ogt                | UDP-N-acetylglucosamine--peptide N-      | -0.3386258 | 0.184713 | -1.83326 | 7 | 0.109422 | 0.3         | 0.2         |
| Q8CGZ0   | Cherp Scaff6       | Calcium homeostasis endoplasmic reti     | 0.1802598  | 0.102121 | 1.76516  | 8 | 0.115536 | 0.308695652 | 0.308695652 |
| Q8CH02   | Sugp1 Sf4          | SURP and G-patch domain-containing       | 0.3248896  | 0.271791 | 1.19537  | 8 | 0.266173 | 0.466666667 | 0.466666667 |
| Q8CH09   | Sugp2 Sfrs14 Srsf1 | SURP and G-patch domain-containing       | 1.1732301  | 0.556505 | 2.10821  | 4 | 0.102698 | 0.55        | 0.15        |
| Q8CH18   | Ccar1 Carp1        | Cell division cycle and apoptosis regul  | 0.3460399  | 0.237305 | 1.45821  | 8 | 0.182895 | 0.372093023 | 0.372093023 |
| Q8CH25   | Sltm Met           | SAFB-like transcription modulator (Mo    | -0.5102073 | 0.27983  | -1.82327 | 8 | 0.105721 | 0.482352941 | 0.482352941 |
| Q8CH72   | Trim32             | E3 ubiquitin-protein ligase TRIM32 (EC   | 0.0304876  | 0.41429  | 0.07359  | 8 | 0.943143 | 0.466666667 | 0.466666667 |
| Q8CH77   | Nav1 Kiaa1151 Por  | Neuron navigator 1 (Pore membrane ai     | 0.0925454  | 0.119001 | 0.77768  | 8 | 0.459134 | 0.46        | 0.46        |
| Q8CHC4   | Synj1 Kiaa0910     | Synaptojanin-1 (EC 3.1.3.36) (Synapti    | 0.5781704  | 0.586271 | 0.98618  | 3 | 0.396755 | 0.6         | 0.1         |
| Q8CHG3   | Gcc2 Kiaa0336      | GRIP and coiled-coil domain-containin    | -0.1078343 | 0.440375 | -0.24487 | 8 | 0.812722 | 0.6         | 0.6         |
| Q8CHI8   | Ep400 Kiaa1498     | E1A-binding protein p400 (EC 3.6.4.-)    | 0.0848079  | 0.421612 | 0.20115  | 8 | 0.8456   | 0.575       | 0.575       |
| Q8CHK3   | Mboat7 Bb1 Leng4 l | Lysophospholipid acyltransferase 7 (LI   | 0.5946643  | 0.655906 | 0.90663  | 4 | 0.415879 | 0.4         | 0           |
| Q8CHP5   | Pym1 Pym Wibg      | Partner of Y14 and mago (PYM homolo      | 0.1371216  | 0.255603 | 0.53646  | 8 | 0.606231 | 0.271428571 | 0.271428571 |
| Q8CHP8   | Pgp                | Glycerol-3-phosphate phosphatase (G      | 0.0029994  | 0.142873 | 0.02099  | 8 | 0.983765 | 0.416666667 | 0.416666667 |
| Q8CHS8   | Vps37a             | Vacuolar protein sorting-associated pr   | 0.1140058  | 0.233716 | 0.4878   | 1 | 0.711078 | 0.7         | 0           |
| Q924K8   | Mta3               | Metastasis-associated protein MTA3       | -0.1611812 | 0.05745  | -2.80561 | 5 | 0.037743 | 0.65        | 0.35        |
| Q8CHT3   | Ints5              | Integrator complex subunit 5 (Int5)      | 0.1411048  | 0.332647 | 0.42419  | 8 | 0.682606 | 0.42        | 0.42        |
| Q8CHU3   | Epn2               | Epsin-2 (EPS-15-interacting protein 2)   | -0.1877807 | 0.453047 | -0.41448 | 7 | 0.690926 | 0.5         | 0.4         |
| Q8CHW4   | Eif2b5             | Translation initiation factor eIF2B subu | -0.3424917 | 0.384003 | -0.8919  | 8 | 0.398479 | 0.425       | 0.425       |
| Q8CHY6   | Gatad2a            | Transcriptional repressor p66 alpha (G   | 0.0907642  | 0.189806 | 0.4782   | 8 | 0.645305 | 0.288888889 | 0.288888889 |
| Q8CI03   | Flywch1 Kiaa1552   | FLYWCH-type zinc finger-containing pr    | 0.8218599  | 0.702374 | 1.17012  | 3 | 0.326454 | 0.5         | 0           |
| Q8CI08   | Slain2 Kiaa1458    | SLAIN motif-containing protein 2         | 0.3741937  | 0.203493 | 1.83886  | 8 | 0.103226 | 0.4         | 0.4         |
| Q8CI11   | Gnl3 Ns            | Guanine nucleotide-binding protein-li    | 0.0263756  | 0.203101 | 0.12986  | 8 | 0.89988  | 0.414285714 | 0.414285714 |
| Q8CI32   | Bag5               | BAG family molecular chaperone regul     | 0.2448723  | 0.108411 | 2.25874  | 8 | 0.053828 | 0.466666667 | 0.466666667 |
| Q8CI33   | Cwf19l1            | CWF19-like protein 1                     | 0.1644962  | 0.219164 | 0.75056  | 8 | 0.474412 | 0.271428571 | 0.271428571 |
| Q8CI61   | Bag4 Sodd          | BAG family molecular chaperone regul     | 0.1780675  | 0.231415 | 0.76947  | 7 | 0.466779 | 0.4         | 0.3         |
| Q8CI70   | Lrrc20             | Leucine-rich repeat-containing protein   | -0.0127124 | 0.453793 | -0.02801 | 5 | 0.978735 | 0.6         | 0.3         |
| Q8CI71   | Vps50 Ccdc132 Kia  | Syndetin (Bcl2-like protein blm) (Coile  | -0.772706  | 0.600876 | -1.28596 | 2 | 0.327237 | 0.6         | 0           |

|        |                     |                                                                |            |          |          |    |          |             |             |
|--------|---------------------|----------------------------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8CI75 | Dis3l2              | DIS3-like exonuclease 2 (EC 3.1.13.-)                          | 0.1134821  | 0.23809  | 0.47664  | 8  | 0.646369 | 0.541666667 | 0.541666667 |
| Q8CI94 | Pygb                | Glycogen phosphorylase, brain form (EC 2.4.1.1)                | -0.2874584 | 0.149433 | -1.92366 | 8  | 0.090603 | 0.334285714 | 0.334285714 |
| O89103 | Cd93 Aa4 C1qr1 C1q  | Complement component C1q receptor                              | -0.2209597 | 0.00806  | -27.4127 | 1  | 0.023213 | 0.7         | 0           |
| Q8CIA8 | Uaca                | Uaca protein                                                   | -0.0748193 | 0.552076 | -0.13552 | 5  | 0.897485 | 0.6         | 0.3         |
| Q8CIB5 | Fermt2 Plekhc1      | Fermitin family homolog 2 (Kindlin-2) (EC 2.7.1.60)            | -0.1851055 | 0.321054 | -0.57656 | 8  | 0.580095 | 0.42        | 0.42        |
| Q8CIE6 | Copa                | Coatomer subunit alpha (Alpha-coat protein complex)            | -0.2644771 | 0.225693 | -1.17185 | 8  | 0.274973 | 0.320754717 | 0.320754717 |
| Q8CIH9 | Ppat                | Amidophosphoribosyltransferase (ATase)                         | -0.0722746 | 0.147802 | -0.489   | 8  | 0.637969 | 0.34375     | 0.34375     |
| Q8CII2 | Cdc123              | Translation initiation factor eIF2 assembly factor             | 0.1733549  | 0.222903 | 0.77772  | 8  | 0.459116 | 0.366666667 | 0.366666667 |
| Q8CIM8 | Ints4               | Integrator complex subunit 4 (Int4)                            | -0.2084589 | 0.383436 | -0.54366 | 7  | 0.60355  | 0.555555556 | 0.455555556 |
| Q8CIN4 | Pak2                | Serine/threonine-protein kinase PAK 2                          | 0.1276066  | 0.103061 | 1.23817  | 8  | 0.250754 | 0.253571429 | 0.253571429 |
| Q8CIN6 | Celf3 Tnrc4         | CUGBP Elav-like family member 3 (CELF3)                        | -0.0401381 | 0.239941 | -0.16728 | 6  | 0.872643 | 0.4         | 0.2         |
| Q8CIP4 | Mark4 Kiaa1860      | MAP/microtubule affinity-regulating kinase                     | 0.6494465  | 0.497428 | 1.30561  | 4  | 0.261714 | 0.4         | 0           |
| Q8CIV2 | Tmem259 ORF61       | Membralin (Transmembrane protein 259)                          | 0.0269644  | 0.096414 | 0.27967  | 4  | 0.793595 | 0.4         | 0           |
| Q8CIV8 | Tbce                | Tubulin-specific chaperone E (Tubulin-binding chaperone)       | -0.2230188 | 0.308484 | -0.72295 | 8  | 0.490303 | 0.59        | 0.59        |
| Q8CJ19 | Mical3 Kiaa0819 Kia | [F-actin]-monooxygenase MICAL3 (EC 1.11.1.1)                   | -0.9814585 | 0.638444 | -1.53727 | 5  | 0.184835 | 0.3         | 0           |
| Q8CJ26 | Nradd               | Death domain-containing membrane protein                       | 0.0545603  | 0.327597 | 0.16655  | 8  | 0.871859 | 0.466666667 | 0.466666667 |
| O70252 | Hmox2               | Heme oxygenase 2 (HO-2) (EC 1.14.14.1)                         | -0.2253284 | 0.083279 | -2.7057  | 8  | 0.026836 | 0.361538462 | 0.361538462 |
| Q8CJ53 | Trip10 Cip4         | Cdc42-interacting protein 4 (Thyroid receptor tyrosine kinase) | -0.4333309 | 0.429865 | -1.00806 | 3  | 0.387682 | 0.5         | 0           |
| Q8CJ67 | Stau2               | Double-stranded RNA-binding protein                            | -0.0102444 | 0.345862 | -0.02962 | 7  | 0.977197 | 0.62        | 0.52        |
| Q8CJF7 | Ahctf1 Elys         | Protein ELYS (Embryonic large molecule)                        | -0.1084224 | 0.449217 | -0.24136 | 8  | 0.815348 | 0.5         | 0.5         |
| Q8CJG0 | Ago2 Eif2c2 Kiaa422 | Protein argonaute-2 (Argonaute2) (MAZ)                         | -0.0861022 | 0.300632 | -0.2864  | 8  | 0.781846 | 0.477777778 | 0.477777778 |
| Q60930 | Vdac2 Vdac6         | Voltage-dependent anion-selective channel                      | -0.2375319 | 0.098397 | -2.41401 | 8  | 0.042243 | 0.193333333 | 0.193333333 |
| Q8CJH3 | Plxnb1 Kiaa0407     | Plexin-B1                                                      | -0.1376932 | 0.163044 | -0.84451 | 8  | 0.422917 | 0.505555556 | 0.505555556 |
| Q8HW98 | Igln5               | IgLON family member 5                                          | 2.1304707  | 2.742727 | 0.77677  | 1  | 0.579566 | 0.7         | 0           |
| Q8JZK9 | Hmgcs1              | Hydroxymethylglutaryl-CoA synthase, cytosolic                  | 0.214995   | 0.147272 | 1.45985  | 8  | 0.182456 | 0.205263158 | 0.205263158 |
| Q8JZL3 | Thtpa               | Thiamine-triphosphatase (ThTPase) (EC 2.8.1.1)                 | 1.2811819  | 0.649637 | 1.97215  | 7  | 0.089208 | 0.575       | 0.475       |
| Q8JZM7 | Cdc73               | Parafibromin (Cell division cycle protein 73)                  | 0.1694787  | 0.210228 | 0.80617  | 8  | 0.443449 | 0.3375      | 0.3375      |
| Q8JZN5 | Acad9               | Complex I assembly factor ACAD9, mitochondrial                 | -0.3168697 | 0.306909 | -1.03246 | 8  | 0.332058 | 0.4         | 0.4         |
| Q8JZN7 | Rhot2 Arht2         | Mitochondrial Rho GTPase 2 (MIRO-2)                            | 0.6360979  | 0.255561 | 2.48902  | 2  | 0.130543 | 0.7         | 0.1         |
| Q8JZP2 | Syn3                | Synapsin-3 (Synapsin III)                                      | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| Q8JZQ2 | Afg3l2              | Mitochondrial inner membrane m-AAA domain-containing protein   | -0.3981792 | 0.625175 | -0.63691 | 2  | 0.589361 | 0.7         | 0.1         |
| Q8JZQ9 | Eif3b Eif3s9        | Eukaryotic translation initiation factor 3B                    | -0.0309755 | 0.076466 | -0.40509 | 8  | 0.696031 | 0.22745098  | 0.22745098  |
| Q8JZU2 | Slc25a1             | Tricarboxylate transport protein, mitochondrial                | 0.2297573  | 0.386932 | 0.59379  | 8  | 0.569056 | 0.48        | 0.48        |
| Q8JZV7 | Amdhd2              | N-acetylglucosamine-6-phosphate deacetylase                    | 0.4990023  | 0.359603 | 1.38765  | 5  | 0.223906 | 0.65        | 0.35        |
| Q8JZX4 | Rbm17 Spf45         | Splicing factor 45 (45 kDa-splicing factor)                    | 0.0097507  | 0.131942 | 0.0739   | 8  | 0.942904 | 0.241666667 | 0.241666667 |
| Q8JZY2 | Comm10              | COMM domain-containing protein 10 (C10orf10)                   | 0.1082434  | 0.279479 | 0.3873   | 7  | 0.710038 | 0.433333333 | 0.333333333 |
| Q8JZZ5 | Pitpnb              | Phosphatidylinositol transfer protein beta                     | 0.0548163  | 0.214548 | 0.2555   | 8  | 0.804785 | 0.34        | 0.34        |
| Q8JZZ6 | Amme1l1             | AMMECR1-like protein                                           | -0.1658648 | 0.456766 | -0.36313 | 6  | 0.728959 | 0.2         | 0           |

|          |         |               |                                            |            |          |          |    |          |             |             |
|----------|---------|---------------|--------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8JZZ7   | Adgrl2  | Kiaa0786      | Lpl Adhesion G protein-coupled receptor l  | -0.334712  | 0.684433 | -0.48904 | 5  | 0.645512 | 0.5         | 0.2         |
| Q8K003   | Tma7    | Ccdc72        | Translation machinery-associated prot      | 0.6360283  | 1.160549 | 0.54804  | 7  | 0.600695 | 0.3         | 0.2         |
| Q8K011   | Smpd1   |               | Sphingomyelin phosphodiesterase (EC        | -0.7089801 | 0.314372 | -2.25522 | 2  | 0.152796 | 0.6         | 0           |
| Q8K013   | Gtpbp10 |               | GTP-binding protein 10                     | 1.2690282  | 0.490284 | 2.58836  | 4  | 0.060789 | 0.6         | 0.2         |
| Q8K015   | Cenpo   | Mcm21r        | Centromere protein O (CENP-O)              | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q8K019   | Bclaf1  | Btf Kiaa0164  | Bcl-2-associated transcription factor 1    | 0.4517432  | 0.268979 | 1.67947  | 8  | 0.131573 | 0.28        | 0.28        |
| Q8K021   | Scamp1  |               | Secretory carrier-associated membran       | 0.1223311  | 0.135254 | 0.90446  | 8  | 0.392175 | 0.2         | 0.2         |
| Q99K85   | Psat1   | Psa Psat      | Phosphoserine aminotransferase (PSA        | -0.2400523 | 0.064878 | -3.70005 | 8  | 0.006042 | 0.176666667 | 0.176666667 |
| Q8K0C4   | Cyp51a1 | Cyp51         | Lanosterol 14-alpha demethylase (LDM       | 0.1198957  | 0.246877 | 0.48565  | 8  | 0.640237 | 0.375       | 0.375       |
| Q8K0C9   | Gmds    |               | GDP-mannose 4,6 dehydratase (EC 4.:        | -0.0087675 | 0.375882 | -0.02333 | 8  | 0.981962 | 0.5         | 0.5         |
| Q8K0D5   | Gfm1    | Efg Efg1      | Gfm Elongation factor G, mitochondrial (EF | -0.0967609 | 0.09098  | -1.06354 | 8  | 0.318582 | 0.55        | 0.55        |
| Q8K0D9   | Zfp60   |               | Zinc finger protein 60                     | 0.392725   | 0.46614  | 0.84251  | 7  | 0.42735  | 0.433333333 | 0.333333333 |
| Q8K0E1   | Kctd15  |               | BTB/POZ domain-containing protein K        | -0.0099693 | 0.299618 | -0.03327 | 8  | 0.974272 | 0.316666667 | 0.316666667 |
| Q8K0E8   | Fgb     |               | Fibrinogen beta chain [Cleaved into: F     | -0.2063522 | 0.270128 | -0.76391 | 8  | 0.466854 | 0.522222222 | 0.522222222 |
| Q8K0G5   | Eipr1   | Tssc1         | EARP and GARP complex-interacting p        | 0.1570047  | 0.172797 | 0.90861  | 8  | 0.390107 | 0.375       | 0.375       |
| Q8K0H5   | Taf10   | Taf2h Tafii30 | Transcription initiation factor TFIID su   | -0.5616053 | 0.313949 | -1.78885 | 8  | 0.111436 | 0.333333333 | 0.333333333 |
| Q8K0T0   | Rtn1    | Nsp           | Reticulon-1 (Neuroendocrine-specific       | 0.0375151  | 0.500403 | 0.07497  | 7  | 0.942336 | 0.525       | 0.425       |
| Q8K0U4   | Hspa12a | Kiaa0417      | Heat shock 70 kDa protein 12A              | -0.3443224 | 0.292111 | -1.17874 | 8  | 0.27237  | 0.46        | 0.46        |
| Q8K0V4   | Cnot3   | Not3          | CCR4-NOT transcription complex sub         | -0.3380685 | 0.190909 | -1.77083 | 8  | 0.114541 | 0.51        | 0.51        |
| Q8K0X8   | Fez1    |               | Fasciculation and elongation protein z     | 0.4771151  | 0.363991 | 1.31079  | 6  | 0.237863 | 0.45        | 0.25        |
| Q3U4X8   | Lig1    |               | DNA ligase (EC 6.5.1.1)                    | -0.2406387 | 0.093347 | -2.57789 | 8  | 0.032723 | 0.311764706 | 0.311764706 |
| Q8K114   | Ints9   | D14ErtD231e   | Integrator complex subunit 9 (Int9)        | 0.0251479  | 0.236722 | 0.10623  | 8  | 0.918012 | 0.469230769 | 0.469230769 |
| Q8K136   | Scnm1   | Scnm1-ps      | Sodium channel modifier 1                  | 0.1405469  | 0.232763 | 0.60382  | 4  | 0.578534 | 0.4         | 0           |
| Q8K157   | Galm    |               | Galactose mutarotase (EC 5.1.3.3) (Alc     | -0.2139248 | 0.117176 | -1.82567 | 7  | 0.110645 | 0.3         | 0.2         |
| Q8K183   | Pdxk    | Pkh           | Pyridoxal kinase (EC 2.7.1.35) (Pyrido     | 0.242488   | 0.25791  | 0.9402   | 8  | 0.374631 | 0.314285714 | 0.314285714 |
| Q8K190   | Saysd1  |               | SAYSvFN domain-containing protein 1        | -1.0640748 | 0.356179 | -2.98747 | 3  | 0.058248 | 0.5         | 0           |
| Q8K194   | Snrnp27 |               | U4/U6.U5 small nuclear ribonucleoprc       | -0.0390559 | 0.402051 | -0.09714 | 3  | 0.92874  | 0.633333333 | 0.133333333 |
| Q8K199   | Cmc2    |               | COX assembly mitochondrial protein 2       | -0.1260812 | 0.381955 | -0.33009 | 5  | 0.75471  | 0.6         | 0.3         |
| Q9D8N0   | Eef1g   |               | Elongation factor 1-gamma (EF-1-gam        | -0.2556545 | 0.085458 | -2.99159 | 8  | 0.017292 | 0.153846154 | 0.153846154 |
| Q8K1C0   | Angel2  | D1ErtD396e    | Protein angel homolog 2                    | 0.1934957  | 0.426271 | 0.45393  | 6  | 0.665839 | 0.6         | 0.4         |
| Q8K1C9   | Lrrc41  | Muf1          | Leucine-rich repeat-containing protein     | 0.1063396  | 0.275895 | 0.38544  | 8  | 0.709961 | 0.466666667 | 0.466666667 |
| Q8K1E0   | Stx5    | Stx5a         | Syntaxin-5                                 | -0.5254918 | 0.367929 | -1.42824 | 8  | 0.191076 | 0.3         | 0.3         |
| Q8K1J5   | Sde2    |               | Splicing regulator SDE2 (Replication st    | -0.0560833 | 0.269588 | -0.20803 | 4  | 0.845366 | 0.5         | 0.1         |
| Q8K1J6   | Trnt1   |               | CCA tRNA nucleotidyltransferase 1, mi      | -0.0680251 | 0.139611 | -0.48725 | 8  | 0.639154 | 0.358333333 | 0.358333333 |
| Q9CWW4   | Gemin7  |               | Gem-associated protein 7 (Gemin-7)         | -0.2576621 | 0.10073  | -2.55794 | 6  | 0.043028 | 0.2         | 0           |
| Q8K1M6-3 | Dnm1l   | Drp1          | Dynamamin-1-like protein (EC 3.6.5.5) (C   | 0.0885598  | 0.231572 | 0.38243  | 4  | 0.721595 | 0.4         | 0           |
| Q8K1M6   | Dnm1l   | Drp1          | Dynamamin-1-like protein (EC 3.6.5.5) (C   | -0.1981287 | 0.326419 | -0.60698 | 7  | 0.563028 | 0.4         | 0.3         |
| Q8K1N4   | Spats2  | Scr59         | Spermatogenesis-associated serine-ric      | 0.5644973  | 0.388762 | 1.45204  | 8  | 0.184554 | 0.37        | 0.37        |

|          |                    |                                          |            |          |           |   |          |              |              |
|----------|--------------------|------------------------------------------|------------|----------|-----------|---|----------|--------------|--------------|
| Q8K1R3   | Pnpt1 Pnpase       | Polyribonucleotide nucleotidyltransfer   | 0.020429   | 0.32382  | 0.06309   | 8 | 0.951245 | 0.5          | 0.5          |
| Q8K1R7   | Nek9 Nercc         | Serine/threonine-protein kinase Nek9     | -0.0325172 | 0.283162 | -0.11484  | 8 | 0.911405 | 0.45         | 0.45         |
| Q8K1X1   | Wdr11 Brwd2 Kiaa1  | WD repeat-containing protein 11 (Bror    | -0.3548606 | 0.295943 | -1.19908  | 6 | 0.275697 | 0.2          | 0            |
| Q8K1Y2   | Prkd3 Prkcn        | Serine/threonine-protein kinase D3 (E    | -0.3616307 | 0.972996 | -0.37167  | 7 | 0.721136 | 0.5          | 0.4          |
| Q8K1Z0   | Coq9               | Ubiquinone biosynthesis protein COQ      | 0.8353925  | 0.532038 | 1.57017   | 7 | 0.160366 | 0.54         | 0.44         |
| Q8K207   |                    | Uncharacterized protein C1orf21 hom      | 0.5202469  | 0.631821 | 0.82341   | 7 | 0.437425 | 0.1          | 0            |
| Q8K209   | Adgrg1 Cyt28 Gpr5  | Adhesion G-protein coupled receptor      | 0.2601482  | 0.298244 | 0.87227   | 8 | 0.408478 | 0.38         | 0.38         |
| Q8K212   | Pacs1              | Phosphofurin acidic cluster sorting pr   | -0.1829676 | 0.302616 | -0.60462  | 8 | 0.562184 | 0.6444444444 | 0.6444444444 |
| Q8K215   | Lym4 lsd11         | LYR motif-containing protein 4           | -0.2428969 | 0.70768  | -0.34323  | 6 | 0.743132 | 0.2          | 0            |
| Q8K221   | Arfp2              | Arfaptin-2 (ADP-ribosylation factor-in   | 0.3256753  | 0.248178 | 1.31226   | 3 | 0.280804 | 0.7          | 0.2          |
| Q8K224   | Nat10 Kiaa1709     | RNA cytidine acetyltransferase (EC 2.3   | -1.02E-05  | 0.374496 | -2.71E-05 | 8 | 0.999979 | 0.38         | 0.38         |
| Q8K268   | Abcf3              | ATP-binding cassette sub-family F men    | 0.327699   | 0.198678 | 1.6494    | 8 | 0.137676 | 0.518181818  | 0.518181818  |
| Q8K273   | Mmg1 Emc5 Tmem     | ER membrane protein complex subuni       | -0.0381993 | 0.11856  | -0.32219  | 8 | 0.755564 | 0.05         | 0.05         |
| Q8K274   | Fn3krp             | Ketosamine-3-kinase (EC 2.7.1.172) (F    | 0.2697013  | 0.299062 | 0.90183   | 8 | 0.39349  | 0.285714286  | 0.285714286  |
| Q8K284   | Gtf3c1             | General transcription factor 3C polype   | -0.0985806 | 0.274944 | -0.35855  | 8 | 0.729211 | 0.533333333  | 0.533333333  |
| Q8K296   | Mtmr3              | Myotubularin-related protein 3 (EC 3.1   | -0.3480298 | 0.262358 | -1.32655  | 7 | 0.226298 | 0.55         | 0.45         |
| Q8K297   | Colgalt1 Glt25d1   | Procollagen galactosyltransferase 1 (E   | 0.429323   | 0.203362 | 2.11112   | 8 | 0.067755 | 0.5          | 0.5          |
| Q7TMK9   | Syncrip Hnrpq Nsap | Heterogeneous nuclear ribonucleopro      | -0.273204  | 0.111173 | -2.45748  | 6 | 0.049288 | 0.35         | 0.15         |
| Q8K2A7   | Ints10             | Integrator complex subunit 10 (Int10)    | 0.7057784  | 0.411453 | 1.71533   | 5 | 0.146944 | 0.6          | 0.3          |
| Q8K2B3   | Sdha               | Succinate dehydrogenase [ubiquinone      | -0.0202335 | 0.12907  | -0.15676  | 8 | 0.879315 | 0.266666667  | 0.266666667  |
| Q8K2C6   | Sirt5 Sir2i5       | NAD-dependent protein deacylase sirt     | -0.1595039 | 0.185114 | -0.86165  | 8 | 0.413958 | 0.457142857  | 0.457142857  |
| Q8K2C7-2 | Os9                | Protein OS-9                             | 0.4074378  | 0.357324 | 1.14025   | 8 | 0.287168 | 0.5          | 0.5          |
| Q8K2C9   | Hacd3 Ptplad1      | Very-long-chain (3R)-3-hydroxyacyl-C     | -0.120158  | 0.569877 | -0.21085  | 8 | 0.838277 | 0.357142857  | 0.357142857  |
| Q8K2D3   | Edc3 Yjdc          | Enhancer of mRNA-decapping protein       | 0.4321282  | 0.288414 | 1.49829   | 8 | 0.172436 | 0.409090909  | 0.409090909  |
| Q8K2F0   | Brd3 Fsg2          | Bromodomain-containing protein 3 (B      | 0.1431352  | 0.187255 | 0.76439   | 8 | 0.466583 | 0.366666667  | 0.366666667  |
| Q8K2F8   | Lsm14a Fam61a Rap  | Protein LSM14 homolog A (Protein FA      | 0.1695007  | 0.543232 | 0.31202   | 7 | 0.764112 | 0.52         | 0.42         |
| Q8K2H2   | Otud6b             | Deubiquitinase OTUD6B (OTU domain        | 0.0359111  | 0.266475 | 0.13476   | 8 | 0.896128 | 0.233333333  | 0.233333333  |
| Q8K2I1   | Fntb               | Protein farnesyltransferase subunit be   | 0.3605722  | 0.307266 | 1.17348   | 8 | 0.274353 | 0.533333333  | 0.533333333  |
| Q8K2K6   | Agfg1 Hrb Rip      | Arf-GAP domain and FG repeat-contain     | -0.069219  | 0.110381 | -0.62709  | 8 | 0.548075 | 0.233333333  | 0.233333333  |
| Q8K2L8   | Trappc12 Ttc15     | Trafficking protein particle complex sul | 0.2576381  | 0.417538 | 0.61704   | 6 | 0.559879 | 0.65         | 0.45         |
| Q8K2M0   | Mrpl38             | Large ribosomal subunit protein mL38     | 0.013724   | 0.283893 | 0.04834   | 8 | 0.962629 | 0.44         | 0.44         |
| Q8K2Q0   | Commmd9            | COMM domain-containing protein 9         | 0.5770739  | 0.543593 | 1.06159   | 8 | 0.319415 | 0.433333333  | 0.433333333  |
| Q8K2Q7   | Brox               | BRO1 domain-containing protein BRO       | 0.1037921  | 0.270351 | 0.38392   | 8 | 0.711044 | 0.328571429  | 0.328571429  |
| Q8K2Q9   | Shtn1 Kiaa1598     | Shootin-1 (Shootin1)                     | 0.7319529  | 0.939825 | 0.77882   | 1 | 0.578754 | 0.7          | 0            |
| Q8K2R5   | Znf668 Zfp668      | Zinc finger protein 668                  | 0.1166549  | 0.814938 | 0.14315   | 5 | 0.891765 | 0.45         | 0.15         |
| Q8K2T1   | Nmral1             | NmrA-like family domain-containing pr    | 0.0186304  | 0.145181 | 0.12832   | 8 | 0.901059 | 0.252941176  | 0.252941176  |
| Q8K2T8   | Paf1               | RNA polymerase II-associated factor 1    | -0.0129345 | 0.21405  | -0.06043  | 8 | 0.953297 | 0.433333333  | 0.433333333  |
| Q8K2V1   | Ppp4r1             | Serine/threonine-protein phosphatase     | 0.0607441  | 0.263264 | 0.23073   | 8 | 0.823312 | 0.33125      | 0.33125      |

|          |                     |                                          |            |          |          |    |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8K2V6   | lpo11 Ranbp11       | Importin-11 (Imp11) (Ran-binding pro     | 0.1271227  | 0.277698 | 0.45777  | 8  | 0.659292 | 0.407407407 | 0.407407407 |
| Q8K2X3   | Stn1 Obfc1          | CST complex subunit STN1 (Alpha-acc      | 0.372692   | 0.208024 | 1.79158  | 8  | 0.110971 | 0.466666667 | 0.466666667 |
| Q8K2Y0   | Obi1 Rnf219         | ORC ubiquitin ligase 1 (OBI1) (EC 2.3.:  | 0.4825576  | 0.272959 | 1.76788  | 7  | 0.120409 | 0.56        | 0.46        |
| Q8K2Y9   | Ccm2 Osm            | Cerebral cavernous malformations pro     | 0.0623724  | 0.124306 | 0.50176  | 1  | 0.703935 | 0.7         | 0           |
| Q8K301   | Ddx52 Rok1          | Probable ATP-dependent RNA helicase      | -0.4989496 | 0.149414 | -3.33937 | 2  | 0.079172 | 0.6         | 0           |
| Q8K310   | Matr3               | Matrin-3                                 | 0.0468382  | 0.130527 | 0.35884  | 8  | 0.729002 | 0.154666667 | 0.154666667 |
| Q8K327   | Champ1 D8Ertd457    | Chromosome alignment-maintaining p       | -0.0595886 | 0.116046 | -0.51349 | 8  | 0.621485 | 0.44375     | 0.44375     |
| Q8K339   | Kin Btcd Kin17      | DNA/RNA-binding protein KIN17 (Binc      | -0.3149043 | 0.307346 | -1.02459 | 7  | 0.339653 | 0.575       | 0.475       |
| Q8C4U3   | Sfrp1               | Secreted frizzled-related protein 1 (sFF | -0.273816  | 0.090915 | -3.01179 | 8  | 0.016768 | 0.247058824 | 0.247058824 |
| Q8K358   | Pigu Cdc91l1        | Phosphatidylinositol glycan anchor bic   | -0.1313048 | 0.145172 | -0.90448 | 5  | 0.407208 | 0.3         | 0           |
| Q8K363   | Ddx18               | ATP-dependent RNA helicase DDX18 (I      | -0.4206322 | 0.284897 | -1.47643 | 8  | 0.178072 | 0.445454545 | 0.445454545 |
| Q8K389   | Cdk5rap2 Kiaa1633   | CDK5 regulatory subunit-associated p     | Inf        | NA       | NA       | NA | NA       | NA          | NA          |
| Q8K3A9   | Mepce Bcdin3 Bip1   | 7SK snRNA methylphosphate capping        | 0.8093239  | 0.934242 | 0.86629  | 7  | 0.415035 | 0.6         | 0.5         |
| Q8K3C3   | Lzic                | Protein LZIC (Leucine zipper and CTNN    | 0.3050073  | 0.392564 | 0.77696  | 8  | 0.459536 | 0.26        | 0.26        |
| Q8K3E5   | Ahi1                | Joubertin (Abelson helper integration si | -0.1030667 | 0.083807 | -1.22981 | 1  | 0.434619 | 0.7         | 0           |
| Q8K3G5   | Vrk3                | Serine/threonine-protein kinase VRK3     | -0.0898349 | 0.19094  | -0.47049 | 8  | 0.650567 | 0.4         | 0.4         |
| Q8K3H0   | App1 Dip13a Kiaa1   | DCC-interacting protein 13-alpha (Dip    | -0.0037274 | 0.207495 | -0.01796 | 8  | 0.986108 | 0.41        | 0.41        |
| Q8K3I9   | Glcci1 Gig18 Tssn1  | Glucocorticoid-induced transcript 1 p    | -0.1725601 | 0.286416 | -0.60248 | 7  | 0.565852 | 0.6         | 0.5         |
| Q8K3J1   | Ndufs8              | NADH dehydrogenase [ubiquinone] iro      | 0.2380846  | 0.232579 | 1.02367  | 8  | 0.335945 | 0.175       | 0.175       |
| Q8K3W0   | Babam2 Bre          | BRISC and BRCA1-A complex member         | 0.0820481  | 0.251777 | 0.32588  | 8  | 0.752879 | 0.366666667 | 0.366666667 |
| Q8K3W3   | Casc3 Mln51         | Protein CASC3 (Cancer susceptibility     | 0.3934806  | 0.322178 | 1.22131  | 7  | 0.2615   | 0.516666667 | 0.416666667 |
| Q8K3X4   | Irf2bpl Eap1 Kiaa18 | Probable E3 ubiquitin-protein ligase IR  | 0.2681059  | 0.175065 | 1.53147  | 8  | 0.164188 | 0.305555556 | 0.305555556 |
| Q8K3Z9   | Pom121 Nup121       | Nuclear envelope pore membrane prot      | -0.1697075 | 0.261077 | -0.65003 | 8  | 0.53389  | 0.433333333 | 0.433333333 |
| Q8K409   | Polb                | DNA polymerase beta (EC 2.7.7.7) (5'-    | 0.2100453  | 0.449706 | 0.46707  | 7  | 0.654638 | 0.54        | 0.44        |
| Q8K411   | Pitrm1 Kiaa1104 Nt  | Presequence protease, mitochondrial (    | -0.0629    | 0.107185 | -0.58684 | 8  | 0.573497 | 0.323529412 | 0.323529412 |
| Q8K4L0   | Ddx54               | ATP-dependent RNA helicase DDX54 (I      | 0.2610889  | 0.159196 | 1.64005  | 8  | 0.139626 | 0.466666667 | 0.466666667 |
| Q8K4M5   | Commd1 Murr1        | COMM domain-containing protein 1 (P      | 0.655394   | 0.470033 | 1.39436  | 7  | 0.205865 | 0.466666667 | 0.366666667 |
| Q8K4P0   | Wdr33 Wdc146        | pre-mRNA 3' end processing protein V     | -0.1453382 | 0.250502 | -0.58019 | 8  | 0.57776  | 0.421052632 | 0.421052632 |
| Q8K4P8   | Hecw1 Kiaa0322 Ne   | E3 ubiquitin-protein ligase HECW1 (E     | 0.1858245  | 0.175741 | 1.05738  | 1  | 0.482249 | 0.7         | 0           |
| Q8K4Q0   | Rptor Raptor        | Regulatory-associated protein of mTOR    | -0.2657283 | 0.3847   | -0.69074 | 8  | 0.50927  | 0.485714286 | 0.485714286 |
| Q8K4R4-2 | Pitpnc1             | Cytoplasmic phosphatidylinositol tran    | -0.0671133 | 0.350697 | -0.19137 | 5  | 0.855763 | 0.666666667 | 0.366666667 |
| Q8K4X7   | Agpat4              | 1-acyl-sn-glycerol-3-phosphate acyltra   | 0.3275072  | 0.313281 | 1.04541  | 5  | 0.343717 | 0.3         | 0           |
| Q8K4Z3   | Naxe Aibp Apoa1bp   | NAD(P)H-hydrate epimerase (EC 5.1.9      | 0.0814007  | 0.148884 | 0.54674  | 8  | 0.599472 | 0.21        | 0.21        |
| Q8K4Z5   | Sf3a1               | Splicing factor 3A subunit 1 (SF3a120    | 0.1961572  | 0.18879  | 1.03903  | 8  | 0.329174 | 0.26        | 0.26        |
| Q8K596   | Slc8a2 Ncx2         | Sodium/calcium exchanger 2 (Na+)/C       | -0.5002298 | 0.447096 | -1.11884 | 6  | 0.30599  | 0.2         | 0           |
| Q8K5B2   | Mcf2 Sdmsf          | Multiple coagulation factor deficiency   | 0.3558957  | 0.414432 | 0.85875  | 7  | 0.418908 | 0.466666667 | 0.366666667 |
| Q8N7N5   | Dcaf8 D1Ucla4 H32   | DDB1- and CUL4-associated factor 8 (     | -0.0712571 | 0.160973 | -0.44267 | 8  | 0.669732 | 0.341666667 | 0.341666667 |
| Q8N9S3   | Ahsa2               | Activator of 90 kDa heat shock protein   | 0.177185   | 0.150937 | 1.1739   | 8  | 0.274196 | 0.22        | 0.22        |

|        |                       |                                          |            |          |          |   |          |             |             |
|--------|-----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8QZS1 | Hibch                 | 3-hydroxyisobutyryl-CoA hydrolase, m     | -0.1650686 | 0.25404  | -0.64977 | 8 | 0.534047 | 0.45        | 0.45        |
| Q8QZT1 | Acat1                 | Acetyl-CoA acetyltransferase, mitoch     | -0.055646  | 0.180864 | -0.30767 | 8 | 0.766192 | 0.282608696 | 0.282608696 |
| Q3TCX3 | Khdc4 Blom7 Kiaa0     | KH homology domain-containing prot       | -0.3022736 | 0.080077 | -3.77477 | 5 | 0.012959 | 0.5         | 0.2         |
| Q8QZX2 | Haus3                 | HAUS augmin-like complex subunit 3       | 1.1238355  | 0.659842 | 1.70319  | 2 | 0.230645 | 0.6         | 0           |
| Q8QZY1 | Eif3l Eif3eip Eif3s6i | Eukaryotic translation initiation factor | -0.0842717 | 0.178071 | -0.47325 | 8 | 0.64868  | 0.309375    | 0.309375    |
| Q8QZY9 | Sf3b4                 | Splicing factor 3B subunit 4             | -0.0963997 | 0.390602 | -0.2468  | 8 | 0.81128  | 0.183333333 | 0.183333333 |
| Q8QZZ7 | Tprkb                 | EKC/KEOPS complex subunit Tprkb (P       | 0.2914469  | 0.247287 | 1.17858  | 7 | 0.277073 | 0.2         | 0.1         |
| Q8R001 | Mapre2                | Microtubule-associated protein RP/EB     | 0.0349309  | 0.244919 | 0.14262  | 8 | 0.890115 | 0.425       | 0.425       |
| Q8R010 | Aimp2 Jtv1            | Aminoacyl tRNA synthase complex-int      | 0.0863452  | 0.106545 | 0.81041  | 8 | 0.441144 | 0.275       | 0.275       |
| Q8R016 | Blmh                  | Bleomycin hydrolase (BH) (BLM hydrol     | 0.3130371  | 0.203103 | 1.54127  | 8 | 0.16182  | 0.261764706 | 0.261764706 |
| Q8R035 | Mrpl58 lct1           | Large ribosomal subunit protein mL62     | -0.3043049 | 0.147055 | -2.06933 | 6 | 0.083965 | 0.3         | 0.1         |
| Q8R050 | Gspt1 Erf3a           | Eukaryotic peptide chain release factor  | 0.2520048  | 0.308525 | 0.81681  | 8 | 0.437685 | 0.378947368 | 0.378947368 |
| Q8R059 | Gale                  | UDP-glucose 4-epimerase (EC 5.1.3.2)     | -0.2414812 | 0.529001 | -0.45649 | 2 | 0.692822 | 0.6         | 0           |
| Q8R060 | Zwilch                | Protein zwilch homolog                   | -0.1117416 | 0.306325 | -0.36478 | 7 | 0.726046 | 0.6         | 0.5         |
| Q8R080 | Gtse1 B99             | G2 and S phase-expressed protein 1 (C    | -0.3538081 | 0.134358 | -2.63333 | 2 | 0.119008 | 0.6         | 0           |
| Q8R081 | Hnrnp1 Hnrpl          | Heterogeneous nuclear ribonucleoprot     | -0.5354317 | 0.25788  | -2.07629 | 8 | 0.071527 | 0.233333333 | 0.233333333 |
| Q8VBU8 | Banp Smar1            | Protein BANP (Btg3-associated nuclea     | -0.3045729 | 0.002678 | -113.746 | 1 | 0.005597 | 0.7         | 0           |
| Q8BSK8 | Rps6kb1               | Ribosomal protein S6 kinase beta-1 (S    | -0.33972   | 0.105557 | -3.21836 | 5 | 0.023508 | 0.55        | 0.25        |
| Q8R0F6 | Ilkap                 | Integrin-linked kinase-associated serin  | 0.1910005  | 0.464932 | 0.41081  | 8 | 0.691993 | 0.392857143 | 0.392857143 |
| Q8R0F8 | Fahd1 MNCb-4134       | Oxaloacetate decarboxylase, mitochon     | -0.2117974 | 0.251938 | -0.84067 | 4 | 0.447847 | 0.4         | 0           |
| Q8R0G9 | Nup133                | Nuclear pore complex protein Nup133      | 0.0580218  | 0.140545 | 0.41283  | 8 | 0.690571 | 0.34        | 0.34        |
| Q8R0H9 | Gga1                  | ADP-ribosylation factor-binding protei   | 0.2587627  | 0.167693 | 1.54307  | 8 | 0.161389 | 0.316666667 | 0.316666667 |
| Q8R0J7 | Vps37b                | Vacuolar protein sorting-associated pr   | 0.2617284  | 0.361477 | 0.72405  | 8 | 0.489663 | 0.233333333 | 0.233333333 |
| Q8R0P4 | Aamdc                 | Mth938 domain-containing protein (LI     | 0.8770404  | 0.473495 | 1.85227  | 3 | 0.161061 | 0.65        | 0.15        |
| Q8R0S2 | lqsec1 Kiaa0763       | IQ motif and SEC7 domain-containing      | 0.1346116  | 0.661067 | 0.20363  | 2 | 0.857483 | 0.6         | 0           |
| Q8R0X2 | Cacul1                | CDK2-associated and cullin domain-co     | 0.0049748  | 0.564698 | 0.00881  | 2 | 0.993771 | 0.6         | 0           |
| Q8R0X7 | Sgpl1 Spl             | Sphingosine-1-phosphate lyase 1 (S1P     | -0.3748929 | 0.25285  | -1.48267 | 8 | 0.176447 | 0.333333333 | 0.333333333 |
| Q8R105 | Vps37c                | Vacuolar protein sorting-associated pr   | 0.3150054  | 0.345964 | 0.91052  | 8 | 0.38916  | 0.45        | 0.45        |
| Q8R127 | Sccpdh                | Saccharopine dehydrogenase-like oxid     | 0.2898869  | 0.326442 | 0.88802  | 8 | 0.40044  | 0.633333333 | 0.633333333 |
| Q8R149 | Bud13                 | BUD13 homolog                            | 0.4849023  | 0.674353 | 0.71906  | 1 | 0.603128 | 0.7         | 0           |
| Q8R164 | Bphl                  | Valacyclovir hydrolase (VACVase) (Vala   | 0.2686551  | 0.170256 | 1.57795  | 8 | 0.15323  | 0.433333333 | 0.433333333 |
| Q8R180 | Ero1a Ero1l           | ERO1-like protein alpha (ERO1-L) (ERC    | 0.326923   | 0.328616 | 0.99485  | 8 | 0.348945 | 0.58        | 0.58        |
| Q8R184 | Fam110a               | Protein FAM110A                          | 0.05939    | 0.521097 | 0.11397  | 5 | 0.913696 | 0.65        | 0.35        |
| Q8R1A4 | Dock7 Gm430 Kiaa1     | Dedicator of cytokinesis protein 7 (Prc  | -0.1298168 | 0.222258 | -0.58408 | 8 | 0.575261 | 0.42        | 0.42        |
| Q8R1B4 | Eif3c Eif3s8          | Eukaryotic translation initiation factor | -0.1916636 | 0.090259 | -2.12349 | 8 | 0.066463 | 0.283783784 | 0.283783784 |
| Q8R1F1 | Niban2 Fam129b        | Protein Niban 2 (Meg-3) (Niban-like pr   | 0.1915529  | 0.581447 | 0.32944  | 7 | 0.75146  | 0.333333333 | 0.233333333 |
| Q8R1F9 | Rpp40                 | Ribonuclease P protein subunit p40 (F    | -0.1341476 | 0.039136 | -3.42774 | 1 | 0.180711 | 0.7         | 0           |
| Q8R1I1 | Uqcr10                | Cytochrome b-c1 complex subunit 9 (      | -0.4833595 | 0.352591 | -1.37088 | 6 | 0.21948  | 0.45        | 0.25        |

|            |                    |                                          |            |          |          |   |          |             |             |
|------------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8R1N0     | Znf830 Ccdc16 Om   | Zinc finger protein 830 (Coiled-coil do  | 0.349575   | 0.291553 | 1.19901  | 8 | 0.264831 | 0.4         | 0.4         |
| Q8R1N4     | Nudcd3 Kiaa1068    | NudC domain-containing protein 3         | -0.0907535 | 0.398771 | -0.22758 | 8 | 0.825679 | 0.46        | 0.46        |
| Q3TKT4     | Smarca4 Baf190a Bi | Transcription activator BRG1 (EC 3.6.4   | -0.3563087 | 0.151528 | -2.35144 | 8 | 0.046576 | 0.333333333 | 0.333333333 |
| Q8R1S4     | Mtss1 Mim          | Protein MTSS 1 (Metastasis suppressor    | 0.1214008  | 0.292003 | 0.41575  | 2 | 0.717954 | 0.7         | 0.1         |
| A0A0R4J0H7 | Ncapd2             | Condensin complex subunit 1              | -0.3588465 | 0.149223 | -2.40477 | 8 | 0.042857 | 0.297959184 | 0.297959184 |
| Q8R1U1     | Cog4               | Conserved oligomeric Golgi complex s     | -0.3289482 | 0.147777 | -2.22598 | 4 | 0.090012 | 0.6         | 0.2         |
| Q8R1V4     | Tmed4 Ers25        | Transmembrane emp24 domain-conta         | 0.4096247  | 0.229447 | 1.78527  | 8 | 0.112046 | 0.333333333 | 0.333333333 |
| Q8R1X6     | Spart Kiaa0610 Spg | Spartin                                  | -0.0540786 | 0.3055   | -0.17702 | 8 | 0.863895 | 0.388888889 | 0.388888889 |
| Q8R2K3     | Ssbp1              | Single-stranded DNA-binding protein      | 0.4123274  | 0.24037  | 1.71538  | 8 | 0.124615 | 0.3         | 0.3         |
| Q8R2M2     | Dnttip2            | Deoxynucleotidyltransferase terminal-i   | -0.2482988 | 0.218372 | -1.13704 | 8 | 0.288428 | 0.283333333 | 0.283333333 |
| Q8R2N2     | Utp4 Cirh1a Kiaa19 | U3 small nucleolar RNA-associated prc    | 0.0086627  | 0.354707 | 0.02442  | 4 | 0.981686 | 0.55        | 0.15        |
| Q8R2Q4     | Gfm2 Efg2          | Ribosome-releasing factor 2, mitochon    | 0.0255668  | 0.275048 | 0.09295  | 1 | 0.940993 | 0.7         | 0           |
| Q8R2R3     | Aagab              | Alpha- and gamma-adaptin-binding pr      | -0.0708976 | 0.319841 | -0.22166 | 7 | 0.830903 | 0.525       | 0.425       |
| Q8R2S9     | Actr8 Arp8         | Actin-related protein 8                  | -0.9210617 | 0.489489 | -1.88168 | 1 | 0.310977 | 0.7         | 0           |
| Q8R2T8     | Gtf3c5             | General transcription factor 3C polype   | 0.752025   | 0.709625 | 1.05975  | 8 | 0.320203 | 0.5625      | 0.5625      |
| Q8R2U0     | Seh1l              | Nucleoporin SEH1 (GATOR2 complex         | -0.1592007 | 0.19014  | -0.83728 | 8 | 0.426737 | 0.390909091 | 0.390909091 |
| Q8R2U4     | Ntmt1 Mettl11a     | N-terminal Xaa-Pro-Lys N-methyltransf    | -0.3494849 | 0.412161 | -0.84793 | 8 | 0.421119 | 0.4         | 0.4         |
| Q8R2U5     | Naa10 Ard1 Ard1a   | N-terminal amino-acid N(alpha)-acetyl    | -0.0157097 | 0.341233 | -0.04604 | 7 | 0.964566 | 0.2         | 0.1         |
| Q8R2Y0     | Abhd6              | Monoacylglycerol lipase ABHD6 (EC 3.     | 0.1399153  | 0.285328 | 0.49037  | 6 | 0.641289 | 0.7         | 0.5         |
| Q8C0I1     | Agps               | Alkyldihydroxyacetonephosphate synt      | -0.3638261 | 0.124907 | -2.91279 | 8 | 0.019506 | 0.384615385 | 0.384615385 |
| Q8R2Y8     | Pthr2 Pth2         | Peptidyl-tRNA hydrolase 2, mitochond     | 0.3838391  | 0.336008 | 1.14235  | 8 | 0.286343 | 0.354545455 | 0.354545455 |
| Q8R307     | Vps18              | Vacuolar protein sorting-associated pr   | -0.4061066 | 0.250514 | -1.62109 | 6 | 0.156124 | 0.2         | 0           |
| Q8R317     | Ubqln1 Plic1       | Ubiquilin-1 (Protein linking IAP with cy | 0.1558616  | 0.169423 | 0.91995  | 8 | 0.384498 | 0.125       | 0.125       |
| Q8R323     | Rfc3               | Replication factor C subunit 3 (Activat  | -0.2160451 | 0.300373 | -0.71926 | 8 | 0.492456 | 0.408333333 | 0.408333333 |
| Q8R326     | Pspc1 Psp1         | Paraspeckle component 1 (Paraspeckle     | 0.2703444  | 0.211997 | 1.27523  | 8 | 0.238013 | 0.2875      | 0.2875      |
| Q8R332     | Nup58 Nupl1        | Nucleoporin p58/p45 (58 kDa nucleop      | 0.3632634  | 0.233504 | 1.5557   | 8 | 0.158389 | 0.4         | 0.4         |
| Q8R344     | Ccdc12             | Coiled-coil domain-containing protein    | 1.1926587  | 0.902785 | 1.32109  | 8 | 0.223006 | 0.36        | 0.36        |
| Q8R349     | Cdc16 Anapc6       | Cell division cycle protein 16 homolog   | 0.0368894  | 0.160286 | 0.23015  | 8 | 0.823753 | 0.4         | 0.4         |
| Q8R395     | Commd5             | COMM domain-containing protein 5         | 0.962832   | 1.957841 | 0.49178  | 3 | 0.656608 | 0.5         | 0           |
| Q8R3B7     | Brd8               | Bromodomain-containing protein 8         | 0.4828939  | 0.318559 | 1.51587  | 5 | 0.18999  | 0.566666667 | 0.266666667 |
| Q8R3C0     | Mcmbp              | Mini-chromosome maintenance compl        | -0.1239717 | 0.126285 | -0.98168 | 8 | 0.355009 | 0.321052632 | 0.321052632 |
| Q8R3C6     | Rbm19              | Probable RNA-binding protein 19 (RN      | -0.3188319 | 0.43004  | -0.7414  | 4 | 0.499618 | 0.65        | 0.25        |
| Q8R3D1     | Tbc1d13            | TBC1 domain family member 13             | 0.355454   | 0.543345 | 0.6542   | 7 | 0.533881 | 0.366666667 | 0.266666667 |
| Q8R3F5     | Mcat Mt            | Malonyl-CoA-acyl carrier protein trans   | 0.2123279  | 0.328023 | 0.6473   | 8 | 0.535569 | 0.3         | 0.3         |
| Q01405     | Sec23a Sec23 Sec2  | Protein transport protein Sec23A (SEC    | -0.3731669 | 0.126373 | -2.9529  | 8 | 0.018344 | 0           | 0           |
| Q8R3G1     | Ppp1r8 Nipp1       | Nuclear inhibitor of protein phosphat    | 0.0662698  | 0.139322 | 0.47566  | 8 | 0.647035 | 0.242105263 | 0.242105263 |
| Q8R3H6     | Ighg AU044919      | Ighg protein                             | 0.0909341  | 0.450618 | 0.2018   | 4 | 0.849922 | 0.65        | 0.25        |
| Q8R3H7     | Hs2st1 Hs2st       | Heparan sulfate 2-O-sulfotransferase 1   | -0.1150846 | 0.258897 | -0.44452 | 8 | 0.668447 | 0.275       | 0.275       |

|        |                     |                                                                                      |            |          |          |   |          |             |             |
|--------|---------------------|--------------------------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8R3H9 | Ttc4                | Tetratricopeptide repeat protein 4 (TPP4)                                            | 0.2697452  | 0.22315  | 1.20881  | 7 | 0.265978 | 0.585714286 | 0.485714286 |
| Q8R3L2 | Tcf25 D8Ertd325e1   | Ribosome quality control complex subunit 1 (RQC1)                                    | -0.2293015 | 0.331796 | -0.69109 | 6 | 0.515342 | 0.5         | 0.3         |
| Q8R3N1 | Nop14 Nol14         | Nucleolar protein 14 (Nucleolar protein 14)                                          | 0.0290843  | 0.430158 | 0.06761  | 7 | 0.947984 | 0.68        | 0.58        |
| Q8R3N6 | Thoc1 Hpr1          | THO complex subunit 1 (Tho1) (Nucleolar protein 14)                                  | -0.272872  | 0.187985 | -1.45156 | 8 | 0.184682 | 0.32        | 0.32        |
| Q8R3P6 | Ints14 Vwa9         | Integrator complex subunit 14 (von Willebrand factor D domain-containing protein 14) | 0.3484663  | 0.366868 | 0.94984  | 8 | 0.370001 | 0.5         | 0.5         |
| Q8R3Q2 | Ppp6r2 Kiaa0685 Pj  | Serine/threonine-protein phosphatase 6 (PP6R2)                                       | 1.8695541  | 0.860596 | 2.1724   | 2 | 0.161937 | 0.6         | 0           |
| Q8R3Q6 | Mix23 Ccdc58        | Protein MIX23 (Coiled-coil domain-containing protein 23)                             | 0.1345063  | 0.293091 | 0.45892  | 7 | 0.6602   | 0.34        | 0.24        |
| Q8R3V5 | Sh3glb2 Kiaa1848    | Endophilin-B2 (SH3 domain-containing protein 2)                                      | 0.1262663  | 0.127373 | 0.99131  | 8 | 0.350564 | 0.4         | 0.4         |
| Q8R3V6 | Cuedc1              | CUE domain-containing protein 1                                                      | -0.6517437 | 0.178607 | -3.64903 | 2 | 0.067577 | 0.6         | 0           |
| Q8R3Y5 |                     | Uncharacterized protein C19orf47 homolog                                             | -0.1231361 | 0.133987 | -0.91902 | 2 | 0.455104 | 0.6         | 0           |
| Q8R3Y8 | Irf2bp1             | Interferon regulatory factor 2-binding protein 1                                     | 0.1080591  | 0.179653 | 0.60149  | 8 | 0.564166 | 0.375       | 0.375       |
| Q8R404 | Micos13 Mic13 Qil1  | MICOS complex subunit MIC13                                                          | 0.6288749  | 0.348188 | 1.80613  | 8 | 0.10853  | 0.5         | 0.5         |
| Q8R409 | Hexim1 Clp1         | Protein HEXIM1 (Cardiac lineage protein 1)                                           | 0.0528167  | 0.13925  | 0.37929  | 8 | 0.714339 | 0.25        | 0.25        |
| Q8R464 | Cadm4 Igslf4c Nec14 | Cell adhesion molecule 4 (Immunoglobulin-like domain-containing protein 4)           | 0.4323525  | 0.263761 | 1.63918  | 8 | 0.139808 | 0.428571429 | 0.428571429 |
| Q8R480 | Nup85 Pcnt1         | Nuclear pore complex protein Nup85 (Nucleoporin 85 kDa)                              | 0.2751555  | 0.299799 | 0.9178   | 8 | 0.385558 | 0.411111111 | 0.411111111 |
| Q8R4H2 | Arhgef12 Kiaa0382   | Rho guanine nucleotide exchange factor 12 (RhoGEF12)                                 | -0.1315786 | 0.296678 | -0.44351 | 8 | 0.669149 | 0.566666667 | 0.566666667 |
| Q8R4R6 | Nup35 Mp44 Nup50    | Nucleoporin NUP35 (35 kDa nucleoporin)                                               | 0.0577166  | 0.222578 | 0.25931  | 8 | 0.801945 | 0.32        | 0.32        |
| Q8R4U7 | Luzp1 Luzp          | Leucine zipper protein 1 (Leucine zipper protein 1)                                  | -0.2921662 | 0.256176 | -1.14049 | 7 | 0.291596 | 0.35        | 0.25        |
| Q8R4X3 | Rbm12               | RNA-binding protein 12 (RNA-binding protein 12)                                      | 0.0287383  | 0.062489 | 0.4599   | 8 | 0.657831 | 0.282352941 | 0.282352941 |
| Q8R4Y4 | Stab1 Feel1         | Stabilin-1 (Fasciclin, EGF-like, laminin-binding protein 1)                          | -0.2826763 | 0.239136 | -1.18208 | 3 | 0.322336 | 0.5         | 0           |
| G5E814 | Ndufa11             | NADH dehydrogenase [ubiquinone] 1 alpha subunit 11                                   | -0.3771389 | 0.157371 | -2.39649 | 8 | 0.043414 | 0.2         | 0.2         |
| Q8R574 | Prpsap2             | Phosphoribosyl pyrophosphate synthetase 2                                            | 0.054065   | 0.174192 | 0.31038  | 8 | 0.764207 | 0.26        | 0.26        |
| Q8R5C5 | Actr1b              | Beta-actinin (Actin-related protein 1)                                               | 0.3060899  | 0.242541 | 1.26201  | 8 | 0.242493 | 0.242857143 | 0.242857143 |
| Q8R5C8 | Zmynd11             | Zinc finger MYND domain-containing protein 11                                        | 0.5508556  | 0.674554 | 0.81662  | 7 | 0.441046 | 0.4         | 0.3         |
| Q8R5F3 | Oard1               | ADP-ribose glycohydrolase OARD1 (OARD1)                                              | 0.7229314  | 0.381065 | 1.89713  | 8 | 0.094384 | 0.4         | 0.4         |
| Q8R5H1 | Usp15 Kiaa0529      | Ubiquitin carboxyl-terminal hydrolase 15 (Usp15)                                     | 0.0803286  | 0.347904 | 0.23089  | 8 | 0.823193 | 0.391666667 | 0.391666667 |
| Q8R5H6 | Wasf1 Wave1         | Actin-binding protein WASF1 (Protein WASF1)                                          | 0.1983414  | 0.241588 | 0.82099  | 8 | 0.435433 | 0.433333333 | 0.433333333 |
| Q8R5J9 | Arl6ip5 Aip5 Jwa Pr | PRA1 family protein 3 (ADP-ribosylating protein 3)                                   | -0.3031631 | 0.323342 | -0.93759 | 3 | 0.417621 | 0.5         | 0           |
| Q8R5K4 | Nol6                | Nucleolar protein 6 (Nucleolar RNA-associated protein 6)                             | -0.2234966 | 0.331836 | -0.67352 | 8 | 0.5196   | 0.533333333 | 0.533333333 |
| Q8R5L1 | C1qbp               | Complement component 1 Q subcomponent 1                                              | 0.046908   | 0.506446 | 0.09262  | 8 | 0.928481 | 0.261538462 | 0.261538462 |
| Q8R5M8 | Cadm1 Igslf4 Nec12  | Cell adhesion molecule 1 (Immunoglobulin-like domain-containing protein 1)           | 0.0462658  | 0.224667 | 0.20593  | 8 | 0.841989 | 0.444444444 | 0.444444444 |
| Q8VBT0 | Tmx1 Txndc Txndc1   | Thioredoxin-related transmembrane protein 1                                          | 0.0123178  | 0.608929 | 0.02023  | 8 | 0.984356 | 0.542857143 | 0.542857143 |
| Q8VBT9 | Aspscr1 Tug         | Tether containing UBX domain for GLUT1                                               | 0.0817244  | 0.374536 | 0.2182   | 8 | 0.832735 | 0.42        | 0.42        |
| P16332 | Mmut Mut            | Methylmalonyl-CoA mutase, mitochondrial                                              | -0.380114  | 0.154403 | -2.46184 | 7 | 0.043349 | 0.55        | 0.45        |
| Q8VBV3 | Exosc2 Rrp4         | Exosome complex component RRP4 (Exosome complex component 2)                         | -0.0332395 | 0.335708 | -0.09901 | 7 | 0.923904 | 0.433333333 | 0.333333333 |
| Q8VBV7 | Cops8 Csn8          | COP9 signalosome complex subunit 8                                                   | 0.1541206  | 0.131983 | 1.16773  | 8 | 0.276538 | 0.16        | 0.16        |
| Q8VBW6 | Nae1 Appbp1         | NEDD8-activating enzyme E1 regulator 1                                               | -0.0859604 | 0.130067 | -0.66089 | 8 | 0.527252 | 0.3875      | 0.3875      |
| Q8VBX6 | Mpdz Mupp1          | Multiple PDZ domain protein (Multi-PDZ domain protein 1)                             | 0.471391   | 0.258998 | 1.82006  | 8 | 0.106243 | 0.6         | 0.6         |

|        |                    |                                           |            |          |          |    |          |             |             |
|--------|--------------------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8VBZ3 | Clptm1 N14         | Putative lipid scramblase CLPTM1 (Clptm1) | 0.032283   | 0.347635 | 0.09286  | 8  | 0.928295 | 0.47        | 0.47        |
| Q8VC30 | Tkfc Dak           | Triokinase/FMN cyclase (Bifunctional A)   | 0.0612529  | 0.149338 | 0.41016  | 8  | 0.692451 | 0.414285714 | 0.414285714 |
| Q8VC31 | Ccdc9              | Coiled-coil domain-containing protein     | 0.086283   | 0.575851 | 0.14984  | 2  | 0.89464  | 0.6         | 0           |
| Q8VC70 | Rbms2              | RNA-binding motif, single-stranded-int    | 0.481402   | 0.301207 | 1.59824  | 3  | 0.208281 | 0.6         | 0.1         |
| Q8VC85 | Lsm1               | U6 snRNA-associated Sm-like protein I     | 0.0714042  | 0.765412 | 0.09329  | 5  | 0.929297 | 0.3         | 0           |
| Q8VCA8 | Scrn2              | Secernin-2                                | 0.0847378  | 0.401637 | 0.21098  | 8  | 0.838177 | 0.408333333 | 0.408333333 |
| Q8VCB1 | Ndc1 Tmem48        | Nucleoporin NDC1 (Transmembrane p         | 0.2591035  | 0.317607 | 0.8158   | 7  | 0.441487 | 0.58        | 0.48        |
| Q8VCB2 | Med25              | Mediator of RNA polymerase II transcrip   | -0.1362233 | 0.366472 | -0.37172 | 8  | 0.719757 | 0.266666667 | 0.266666667 |
| Q8VCD5 | Med17 Crsp6 Trap8  | Mediator of RNA polymerase II transcrip   | -0.3023443 | 0.046389 | -6.51754 | 1  | 0.096922 | 0.7         | 0           |
| Q8VCD6 | Reep2              | Receptor expression-enhancing protein     | 0.3521791  | 0.507965 | 0.69331  | 8  | 0.507739 | 0.333333333 | 0.333333333 |
| Q8VCE2 | Gpn1 Mbdin Xab1    | GPN-loop GTPase 1 (EC 3.6.5.-) (MBD)      | 0.3830318  | 0.218389 | 1.75389  | 8  | 0.117534 | 0.375       | 0.375       |
| Q8VCE4 |                    | Uncharacterized protein C9orf40 hom       | -0.1527716 | 0.207967 | -0.7346  | 8  | 0.483559 | 0.25        | 0.25        |
| Q8VCF0 | Mavs Ips1 Visa     | Mitochondrial antiviral-signaling protei  | 0.3857142  | 0.400845 | 0.96225  | 8  | 0.364102 | 0.475       | 0.475       |
| Q8VCG3 | Wdr74              | WD repeat-containing protein 74           | 0.2795048  | 0.338213 | 0.82642  | 7  | 0.435827 | 0.566666667 | 0.466666667 |
| Q8VCI5 | Pex19 Pxf          | Peroxisomal biogenesis factor 19 (Perc    | 0.0834496  | 0.13909  | 0.59997  | 8  | 0.56513  | 0.153333333 | 0.153333333 |
| Q8VCM7 | Fgg                | Fibrinogen gamma chain                    | 0.4911337  | 0.306483 | 1.60248  | 8  | 0.147717 | 0.5         | 0.5         |
| Q8VCM8 | Ncln               | BOS complex subunit NCLN (Nicalin) (      | 0.201428   | 0.336634 | 0.59836  | 8  | 0.566151 | 0.5         | 0.5         |
| Q8VCP8 | Ak6 Cinap          | Adenylate kinase isoenzyme 6 (AK6) (E Inf |            | NA       | NA       | NA | NA       | NA          | NA          |
| Q8VCQ8 | Cald1              | Caldesmon 1                               | 1.0359532  | 0.854145 | 1.21285  | 8  | 0.259781 | 0.384615385 | 0.384615385 |
| Q8VCS6 | Med9 Med25         | Mediator of RNA polymerase II transcrip   | -0.4164062 | 0.248729 | -1.67414 | 7  | 0.138016 | 0.1         | 0           |
| Q8VCT3 | Rnpep              | Aminopeptidase B (AP-B) (EC 3.4.11.6      | -0.0874103 | 0.071177 | -1.22807 | 8  | 0.254325 | 0.325       | 0.325       |
| Q8VCV3 | Arl6               | ADP-ribosylation factor-like protein 6    | -0.0472316 | 0.123604 | -0.38212 | 8  | 0.712323 | 0.32        | 0.32        |
| Q8VCW8 | Acsf2              | Medium-chain acyl-CoA ligase ACSF2, I     | -0.0296364 | 0.236858 | -0.12512 | 8  | 0.903513 | 0.353846154 | 0.353846154 |
| Q8VD04 | Gripap1 DXImx47e1  | GRIP1-associated protein 1 (GRASP-1)      | 0.8302816  | 0.764432 | 1.08614  | 5  | 0.326983 | 0.55        | 0.25        |
| Q8VD12 | Znf385a Hzf Zfp385 | Zinc finger protein 385A (Hematopoiet     | 0.209476   | 0.408837 | 0.51237  | 4  | 0.635386 | 0.4         | 0           |
| Q8VD62 | Bles03             | UPF0696 protein C11orf68 homolog I        | -0.1696945 | 0.180025 | -0.94262 | 6  | 0.382265 | 0.466666667 | 0.266666667 |
| Q8VD65 | Pik3r4 Vps15       | Phosphoinositide 3-kinase regulatory s    | 0.7463765  | 0.463525 | 1.61022  | 4  | 0.182638 | 0.55        | 0.15        |
| Q8VD75 | Hip1 Kiaa4113      | Huntingtin-interacting protein 1 (HIP-1   | 0.0337627  | 0.088832 | 0.38007  | 8  | 0.713782 | 0.319230769 | 0.319230769 |
| Q8VDD5 | Myh9               | Myosin-9 (Cellular myosin heavy chain     | 0.0963362  | 0.128485 | 0.74979  | 8  | 0.474852 | 0.33373494  | 0.33373494  |
| Q8VDD8 | Washc1 Orf19 Wash  | WASH complex subunit 1 (WAS protein       | 0.6758254  | 0.596522 | 1.13294  | 1  | 0.460372 | 0.7         | 0           |
| Q8VDD9 | Phip Ndrp Phip1 Wc | PH-interacting protein (PHIP) (IRS-1 PI   | 0.3508603  | 0.278383 | 1.26035  | 7  | 0.247929 | 0.55        | 0.45        |
| Q8VDF2 | Uhrf1 Np95         | E3 ubiquitin-protein ligase UHRF1 (EC     | 0.0249595  | 0.170589 | 0.14631  | 8  | 0.887293 | 0.3         | 0.3         |
| Q8VDG3 | Parn               | Poly(A)-specific ribonuclease PARN (E     | -0.5800185 | 0.272015 | -2.13231 | 8  | 0.065557 | 0.525       | 0.525       |
| Q8VDH1 | Fbxo21 Fbx21 Kiaa0 | F-box only protein 21                     | -0.3526198 | 0.377516 | -0.93405 | 8  | 0.377608 | 0.4         | 0.4         |
| Q8VDI7 | Ubac1 Kpc2 Ubac1   | Ubiquitin-associated domain-containin     | -0.2304471 | 0.086353 | -2.66868 | 1  | 0.228243 | 0.7         | 0           |
| Q8VDJ3 | Hdlbp              | Vigilin (High density lipoprotein-bindin  | 0.1046966  | 0.15078  | 0.69437  | 8  | 0.507111 | 0.330769231 | 0.330769231 |
| Q8VDK1 | Nit1               | Deaminated glutathione amidase (dGS       | -0.1970378 | 0.207941 | -0.94756 | 8  | 0.371091 | 0.366666667 | 0.366666667 |
| Q8VDM1 | Zgpat Kiaa1847     | Zinc finger CCCH-type with G patch do     | 0.460457   | 0.324099 | 1.42073  | 7  | 0.198371 | 0.45        | 0.35        |

|        |                     |                                                |            |          |          |    |          |             |             |
|--------|---------------------|------------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q8VDM4 | Psmc2               | 26S proteasome non-ATPase regulator            | 0.1577187  | 0.168584 | 0.93555  | 8  | 0.376882 | 0.236619718 | 0.236619718 |
| Q8VDM6 | Hnrnpul1 Hnrnpul1   | Heterogeneous nuclear ribonucleoprotein        | -0.132419  | 0.119856 | -1.10482 | 8  | 0.301356 | 0.308823529 | 0.308823529 |
| Q8VDN2 | Atp1a1              | Sodium/potassium-transporting ATPase           | -0.206926  | 0.18328  | -1.12901 | 8  | 0.291607 | 0.208333333 | 0.208333333 |
| Q8VDP2 | Steep1              | STING ER exit protein (STEEP)                  | -0.3852359 | 0.299844 | -1.28479 | 8  | 0.234816 | 0.433333333 | 0.433333333 |
| Q8VDP3 | Mical1 Mical Nical  | [F-actin]-monooxygenase MICAL1 (EC 1.11.1.1)   | -0.45462   | 0.308609 | -1.47313 | 8  | 0.178939 | 0.45        | 0.45        |
| Q8VDP4 | Ccar2               | Cell cycle and apoptosis regulator protein     | -0.0254588 | 0.09654  | -0.26371 | 8  | 0.798667 | 0.343181818 | 0.343181818 |
| Q8VDP6 | Cdipt Pis1          | CDP-diacylglycerol--inositol 3-phosphatase     | -0.9857105 | 0.768319 | -1.28294 | 4  | 0.268804 | 0.4         | 0           |
| Q8VDQ1 | Ptgr2 Zadh1         | Prostaglandin reductase 2 (PRG-2) (EC 1.1.1.1) | -0.8605355 | 1.134454 | -0.75855 | 5  | 0.482328 | 0.3         | 0           |
| Q8VDQ8 | Sirt2 Sir2l2        | NAD-dependent protein deacetylase sir2         | -0.1184482 | 0.278252 | -0.42569 | 8  | 0.681557 | 0.425       | 0.425       |
| Q8VDQ9 | Kri1                | Protein KRI1 homolog                           | -0.0563206 | 0.435061 | -0.12945 | 5  | 0.902045 | 0.3         | 0           |
| Q8VDS4 | Rprd1a Kiaa4077 P1  | Regulation of nuclear pre-mRNA domain          | 0.1134663  | 0.127198 | 0.89205  | 8  | 0.398405 | 0.35        | 0.35        |
| Q8VDT9 | Mrpl50              | Large ribosomal subunit protein mL50           | 0.3686936  | 0.419849 | 0.87816  | 6  | 0.413637 | 0.4         | 0.2         |
| Q8VDU0 | Gpsm2 Lgn Pins      | G-protein-signaling modulator 2 (Pins)         | -0.1542748 | 0.35115  | -0.43934 | 8  | 0.67204  | 0.366666667 | 0.366666667 |
| Q8VDU5 | Snrk                | SNF-related serine/threonine-protein kinase    | 0.8679844  | 0.364235 | 2.38303  | 3  | 0.097351 | 0.5         | 0           |
| Q8VDW0 | Ddx39a Ddx39        | ATP-dependent RNA helicase DDX39A              | 0.2257463  | 0.22616  | 0.99817  | 8  | 0.347426 | 0.292307692 | 0.292307692 |
| Q8VE10 | Naa40 Nat11 Patt1   | N-alpha-acetyltransferase 40 (EC 2.3.1.1)      | -0.2845661 | 0.22401  | -1.27033 | 8  | 0.239666 | 0           | 0           |
| Q8VE19 | Mios                | GATOR2 complex protein MIOS                    | -0.0773365 | 0.321564 | -0.2405  | 6  | 0.817949 | 0.6         | 0.4         |
| Q8VE22 | Mrps23              | Small ribosomal subunit protein mS23           | -0.3394972 | 0.31952  | -1.06252 | 8  | 0.319017 | 0.366666667 | 0.366666667 |
| Q8R2Y2 | Mcam Muc18          | Cell surface glycoprotein MUC18 (GlyCAM-1)     | -0.3802493 | 0.091414 | -4.15966 | 8  | 0.003167 | 0.166666667 | 0.166666667 |
| Q8VE37 | Rcc1 Chc1           | Regulator of chromosome condensation           | 0.2369715  | 0.105779 | 2.24026  | 8  | 0.055403 | 0.30952381  | 0.30952381  |
| P53798 | Fdft1 Erg9          | Squalene synthase (SQS) (SS) (EC 2.5.1.1)      | -0.3921854 | 0.135626 | -2.89168 | 7  | 0.023261 | 0.483333333 | 0.383333333 |
| Q8VE47 | Uba5                | Ubiquitin-like modifier-activating enzyme      | 0.4119901  | 0.283719 | 1.4521   | 8  | 0.184536 | 0.383333333 | 0.383333333 |
| Q8VE65 | Taf12               | Transcription initiation factor TFIID subunit  | -0.258148  | 0.616406 | -0.4188  | 6  | 0.689944 | 0.5         | 0.3         |
| Q8VE70 | Pdcd10 Tfar15       | Programmed cell death protein 10 (TFAR-1)      | 0.2642278  | 0.222153 | 1.1894   | 8  | 0.268384 | 0.45        | 0.45        |
| Q8VE73 | Cul7 Kiaa0076       | Cullin-7 (CUL-7) (p185) (p193)                 | 0.4555513  | 0.555261 | 0.82043  | 1  | 0.562596 | 0.7         | 0           |
| Q8VE80 | Thoc3               | THO complex subunit 3 (Tho3)                   | 0.1887767  | 0.10383  | 1.81813  | 8  | 0.106557 | 0.266666667 | 0.266666667 |
| Q8VE88 | Fam114a2            | Protein FAM114A2                               | 0.1664073  | 0.553484 | 0.30065  | 8  | 0.771343 | 0.446153846 | 0.446153846 |
| Q8VE92 | Rbm4b Rbm30         | RNA-binding protein 4B (RNA-binding protein)   | 0.0936745  | 0.275105 | 0.34051  | 7  | 0.743467 | 0.575       | 0.475       |
| Q8VE95 |                     | UPF0598 protein C8orf82 homolog                | -0.3718675 | 0.248524 | -1.4963  | 3  | 0.231473 | 0.5         | 0           |
| Q8VE97 | Srsf4 Sfrs4 MNCB-2  | Serine/arginine-rich splicing factor 4 (SRSF4) | 0.7230928  | 0.37591  | 1.92358  | 8  | 0.090614 | 0.35        | 0.35        |
| Q8VE98 | Cd276 B7h3          | CD276 antigen (B7 homolog 3) (B7-H3)           | 0.347101   | 0.368516 | 0.94189  | 2  | 0.445675 | 0.65        | 0.05        |
| Q8VE99 | Ccdc115             | Coiled-coil domain-containing protein          | 0.6035427  | 0.383991 | 1.57176  | 7  | 0.160001 | 0.5         | 0.4         |
| Q8VEA4 | Chchd4 Mia40        | Mitochondrial intermembrane space iron         | -0.0286397 | 0.244619 | -0.11708 | 8  | 0.909684 | 0.35        | 0.35        |
| Q8VED9 | Lgalsl Grpa Lgalsla | Galectin-related protein (Galectin-related)    | 0.1442493  | 0.204137 | 0.70663  | 8  | 0.499857 | 0.45        | 0.45        |
| Q8VEE0 | Rpe                 | Ribulose-phosphate 3-epimerase (EC 5.3.1.1)    | 0.2807516  | 0.422563 | 0.6644   | 8  | 0.525117 | 0.24        | 0.24        |
| Q8VEE1 | Lmcd1               | LIM and cysteine-rich domains protein          | -0.4726985 | 0.340682 | -1.38751 | 6  | 0.214625 | 0.45        | 0.25        |
| Q8VEE4 | Rpa1                | Replication protein A 70 kDa DNA-binding       | 0.0619934  | 0.182919 | 0.33891  | 8  | 0.743401 | 0.331428571 | 0.331428571 |
| Q8VEH2 | Ciz1                | CDKN1A interacting zinc finger protein         | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |

|          |                      |                                                           |            |          |          |   |          |             |             |
|----------|----------------------|-----------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8VEH3   | Arl8a Arl10b Gie2    | ADP-ribosylation factor-like protein 8A                   | 0.162098   | 0.388112 | 0.41766  | 8 | 0.687182 | 0.385714286 | 0.385714286 |
| Q8VEH5   | Epm2aip1 Kiaa0766    | EPM2A-interacting protein 1 (Laforin-interacting protein) | 0.1402887  | 0.317132 | 0.44237  | 8 | 0.669939 | 0.406666667 | 0.406666667 |
| Q8VEH6   | Zng1 Cbw1            | Zinc-regulated GTPase metalloproteinase                   | 0.7310903  | 0.460972 | 1.58598  | 8 | 0.151405 | 0.4         | 0.4         |
| Q8VEJ4   | Nle1                 | Notchless protein homolog 1                               | -0.1906182 | 0.13644  | -1.39709 | 8 | 0.199921 | 0.485714286 | 0.485714286 |
| Q8VEJ9   | Vps4a                | Vacuolar protein sorting-associated protein 4A            | 0.148972   | 0.260067 | 0.57282  | 8 | 0.582503 | 0.55        | 0.55        |
| Q8VEK0   | Tmem30a Cdc50a Cdc50 | Cell cycle control protein 50A (P4-ATPase)                | -0.7022686 | 0.452287 | -1.55271 | 2 | 0.260691 | 0.6         | 0           |
| Q8VEK3   | Hnrnpu Hnrpu         | Heterogeneous nuclear ribonucleoprotein U                 | 0.0681224  | 0.132265 | 0.51505  | 8 | 0.620446 | 0.202777778 | 0.202777778 |
| Q8VEK6   | Ing3                 | Inhibitor of growth protein 3 (p47ING3)                   | 0.665612   | 0.635906 | 1.04671  | 3 | 0.372133 | 0.5         | 0           |
| Q8VEL9   | Rem2                 | GTP-binding protein REM 2 (Rad and GTP-binding protein)   | 0.4525642  | 0.363248 | 1.24588  | 8 | 0.248056 | 0.533333333 | 0.533333333 |
| Q8VEM8   | Slc25a3              | Solute carrier family 25 member 3 (Phosphate carrier)     | -0.2165257 | 0.300164 | -0.72136 | 8 | 0.49123  | 0.255       | 0.255       |
| Q8VH37   | Hdac8                | Histone deacetylase 8 (HD8) (EC 3.5.1.99)                 | -0.2770074 | 0.300288 | -0.92247 | 7 | 0.386973 | 0.4         | 0.3         |
| Q8VH51-2 | Rbm39 Caper Rnpc3    | RNA-binding protein 39 (Coactivator of transcription)     | 0.0757013  | 0.075415 | 1.0038   | 8 | 0.344869 | 0.219230769 | 0.219230769 |
| Q8VHE0   | Sec63 Dnajc23 Sec63  | Translocation protein SEC63 homolog                       | -0.371928  | 0.180813 | -2.05698 | 8 | 0.073705 | 0.490909091 | 0.490909091 |
| Q8VHH5   | Agap3 Centg3         | Arf-GAP with GTPase, ANK repeat and GTP-binding domain    | 0.6177038  | 0.525838 | 1.1747   | 8 | 0.273892 | 0.38        | 0.38        |
| Q8VHI6   | Wasf3 Wave3          | Actin-binding protein WASF3 (Protein WASP)                | 0.5715326  | 0.254515 | 2.24558  | 6 | 0.06584  | 0.6         | 0.4         |
| Q8VHJ5   | Mark1 Emk3 Kiaa1419  | Serine/threonine-protein kinase MARK1                     | -0.2097923 | 0.335023 | -0.6262  | 8 | 0.548628 | 0           | 0           |
| Q8VHK9   | Dhx36 Ddx36 Kiaa1419 | ATP-dependent DNA/RNA helicase DHX36                      | 0.0916079  | 0.265144 | 0.3455   | 8 | 0.738626 | 0.536842105 | 0.536842105 |
| Q8VHM5   | Hnrnpr Hnrpr         | Heterogeneous nuclear ribonucleoprotein P                 | -0.1362701 | 0.089312 | -1.52577 | 8 | 0.165578 | 0.276086957 | 0.276086957 |
| Q8VHN8   | Nudt16l1 Sdos Tirr   | Tudor-interacting repair regulator protein                | -0.4342612 | 0.267859 | -1.62123 | 8 | 0.143626 | 0.485714286 | 0.485714286 |
| Q8VHN9   | Syne2 Nua            | NUANCE                                                    | 0.0042426  | 0.477114 | 0.00889  | 5 | 0.993249 | 0.45        | 0.15        |
| Q8VHR5   | Gatad2b              | Transcriptional repressor p66-beta (GATAD2B)              | -0.0635389 | 0.123035 | -0.51643 | 8 | 0.619523 | 0.257894737 | 0.257894737 |
| Q8VHX6   | Flnc Abpl Fln2       | Filamin-C (FLN-C) (ABP-280-like protein)                  | -0.3003265 | 0.459851 | -0.65309 | 8 | 0.532012 | 0.463636364 | 0.463636364 |
| Q8VI33   | Taf9 Taf2g           | Transcription initiation factor TFIID subunit 9           | 0.1779616  | 0.196593 | 0.90523  | 8 | 0.391792 | 0.433333333 | 0.433333333 |
| Q8VI36   | Pxn                  | Paxillin                                                  | 0.2488645  | 0.246668 | 1.0089   | 8 | 0.342559 | 0.542857143 | 0.542857143 |
| Q8VI56   | Lrp4 Kiaa0816        | Low-density lipoprotein receptor-related protein 4        | -0.3996625 | 0.251334 | -1.59017 | 2 | 0.252761 | 0.6         | 0           |
| Q8VI75   | Ipo4 Imp4a Ranbp4    | Importin-4 (Imp4) (Importin-4a) (Imp4)                    | 0.2328575  | 0.222897 | 1.04468  | 8 | 0.326705 | 0.4         | 0.4         |
| Q8VI84   | Noc3l Ad24 Fad24     | Nucleolar complex protein 3 homolog                       | 0.9794283  | 0.653033 | 1.49981  | 4 | 0.208045 | 0.4         | 0           |
| Q8VIJ8   | Nprl3 Mare           | GATOR1 complex protein NPRL3 (Nitrogen sensing)           | -0.1202189 | 0.305642 | -0.39333 | 1 | 0.761429 | 0.7         | 0           |
| Q8VIM9   | Irgq Irgq1 Fksg27    | Immunity-related GTPase family Q protein                  | 0.0096451  | 0.121846 | 0.07916  | 8 | 0.938851 | 0.4375      | 0.4375      |
| Q8VIN1-2 | Pbp2 Pebp2           | Phosphatidylethanolamine-binding protein 2                | 0.074025   | 0.261476 | 0.2831   | 7 | 0.785286 | 0.1         | 0           |
| Q8WTY4   | Ciapi1               | Anamorsin (Cytokine-induced apoptosis inhibitor)          | 0.1704908  | 0.234606 | 0.72671  | 8 | 0.488119 | 0.33        | 0.33        |
| Q91V04   | Tram1 Tram           | Translocating chain-associated membrane protein 1         | -0.611791  | 0.866542 | -0.70601 | 1 | 0.608637 | 0.7         | 0           |
| Q91V12-2 | Acot7 Bach           | Cytosolic acyl coenzyme A thioester hydrolase 7           | 0.2057147  | 0.1729   | 1.18979  | 8 | 0.268238 | 0.381818182 | 0.381818182 |
| Q91V41   | Rab14                | Ras-related protein Rab-14 (EC 3.6.5.2)                   | 0.1344998  | 0.315918 | 0.42574  | 8 | 0.681518 | 0.272222222 | 0.272222222 |
| Q91V57   | Chn1 Arhgap2         | N-chimaerin (A-chimaerin) (Alpha-chimaerin)               | 0.8844901  | 0.5328   | 1.66008  | 8 | 0.135479 | 0.375       | 0.375       |
| Q91V61   | Sfxn3                | Sideroflexin-3                                            | -0.2271193 | 0.372923 | -0.60903 | 6 | 0.564839 | 0.575       | 0.375       |
| Q91V64   | Isoc1                | Isochorismatase domain-containing protein 1               | 0.0272462  | 0.105706 | 0.25775  | 8 | 0.803103 | 0.345454545 | 0.345454545 |
| Q91V76   |                      | Ester hydrolase C11orf54 homolog (Esterase)               | 0.1203027  | 0.462265 | 0.26025  | 8 | 0.801247 | 0.4         | 0.4         |

|        |                    |                                            |            |          |          |   |          |             |             |
|--------|--------------------|--------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q91V81 | Rbm42              | RNA-binding protein 42 (RNA-binding        | -0.1871382 | 0.127258 | -1.47055 | 8 | 0.179617 | 0.266666667 | 0.266666667 |
| Q91VA6 | Poldip2            | Polymerase delta-interacting protein 2     | -0.4724999 | 0.259878 | -1.81816 | 8 | 0.106552 | 0.411111111 | 0.411111111 |
| Q91VA7 | Idh3b              | Isocitrate dehydrogenase [NAD] subun       | -0.0136373 | 0.106868 | -0.12761 | 8 | 0.901608 | 0.346666667 | 0.346666667 |
| Q91VC3 | Eif4a3 Ddx48       | Eukaryotic initiation factor 4A-III (eIF-4 | 0.1903878  | 0.155928 | 1.221    | 8 | 0.256847 | 0.288571429 | 0.288571429 |
| Q91VC7 | Ppp1r14a Cpi17     | Protein phosphatase 1 regulatory subu      | 0.1479577  | 0.583526 | 0.25356  | 6 | 0.808302 | 0.6         | 0.4         |
| Q91VD9 | Ndufs1             | NADH-ubiquinone oxidoreductase 75          | 0.0972734  | 0.110311 | 0.88181  | 8 | 0.403595 | 0.260606061 | 0.260606061 |
| Q91VE6 | Nifk Mki67ip       | MKI67 FHA domain-interacting nucleol       | 0.1847612  | 0.286589 | 0.64469  | 8 | 0.537171 | 0.24        | 0.24        |
| Q91VH6 | Memo1              | Protein MEMO1 (Mediator of ErbB2-dri       | -0.1399261 | 0.304458 | -0.45959 | 8 | 0.658041 | 0.45        | 0.45        |
| Q3THW5 | H2az2 H2afv H2av   | Histone H2A.V (H2A.F/Z) (H2A.Z varian      | -0.4022125 | 0.126862 | -3.17048 | 8 | 0.013185 | 0.1         | 0.1         |
| P68181 | Prkacb Pkacb       | cAMP-dependent protein kinase cataly       | -0.4023208 | 0.168421 | -2.38878 | 8 | 0.043939 | 0.44        | 0.44        |
| Q80U70 | Suz12 D11Ert530    | Polycomb protein Suz12 (Suppressor         | -0.4027996 | 0.136733 | -2.94588 | 8 | 0.018542 | 0.3875      | 0.3875      |
| Q91VJ9 | Agpat1             | 1-acyl-sn-glycerol-3-phosphate acyltra     | -0.1509518 | 0.222285 | -0.67909 | 3 | 0.545779 | 0.5         | 0           |
| Q91VK1 | Bzw2 5mp1          | eIF5-mimic protein 1 (Basic leucine zip    | -0.1320501 | 0.175228 | -0.75359 | 8 | 0.472688 | 0.3         | 0.3         |
| Q91VL6 | Zfp825 BC012278    | Zinc finger protein 825                    | -0.5567954 | 0.118325 | -4.70563 | 1 | 0.133306 | 0.7         | 0           |
| Q922H1 | Prmt3 Hrmt1l3      | Protein arginine N-methyltransferase 3     | -0.4044517 | 0.132671 | -3.04853 | 8 | 0.015856 | 0.5         | 0.5         |
| Q91VM5 | Rbmxl1 Rbmxt       | RNA binding motif protein, X-linked-lik    | 0.2642252  | 0.690954 | 0.38241  | 8 | 0.712119 | 0.457142857 | 0.457142857 |
| Q91VM9 | Ppa2               | Inorganic pyrophosphatase 2, mitocho       | 0.1606328  | 0.254155 | 0.63203  | 8 | 0.545003 | 0.52        | 0.52        |
| Q91VN1 | Znf24 Hmcns Zfp19  | Zinc finger protein 24 (Hypomyelinatec     | -0.1006987 | 0.414143 | -0.24315 | 8 | 0.814008 | 0.414285714 | 0.414285714 |
| Q91VN4 | Chchd6 Mic25       | MICOS complex subunit Mic25 (Coiled        | 0.2104199  | 0.436466 | 0.4821   | 8 | 0.642648 | 0.366666667 | 0.366666667 |
| Q91VN6 | Ddx41              | Probable ATP-dependent RNA helicase        | 0.035389   | 0.155484 | 0.22761  | 8 | 0.825662 | 0.39        | 0.39        |
| Q91VR2 | Atp5f1c Atp5c1     | ATP synthase subunit gamma, mitocho        | 0.4428351  | 0.20876  | 2.12126  | 8 | 0.066694 | 0.261538462 | 0.261538462 |
| Q91VR5 | Ddx1               | ATP-dependent RNA helicase DDX1 (E         | 0.0779168  | 0.074698 | 1.04309  | 8 | 0.327401 | 0.261538462 | 0.261538462 |
| Q91VR7 | Map1lc3a           | Microtubule-associated proteins 1A/1B      | 0.5310821  | 0.418688 | 1.26844  | 6 | 0.25163  | 0.45        | 0.25        |
| Q91VR8 | Brk1               | Protein BRICK1 (BRK1)                      | 0.0051307  | 0.170635 | 0.03007  | 3 | 0.977901 | 0.65        | 0.15        |
| Q91VT1 | Nsmce2 Mms21       | E3 SUMO-protein ligase NSE2 (EC 2.3.       | 1.6186549  | 0.937462 | 1.72664  | 2 | 0.226375 | 0.6         | 0           |
| Q91VT4 | Cbr4               | 3-oxoacyl-[acyl-carrier-protein] reduct    | -0.3978381 | 0.212193 | -1.87489 | 7 | 0.102936 | 0.433333333 | 0.333333333 |
| Q91VU8 | Ptov1              | Prostate tumor-overexpressed gene 1        | 0.1195081  | 0.510816 | 0.23396  | 3 | 0.830076 | 0.5         | 0           |
| Q91VW3 | Sh3bgrl3           | SH3 domain-binding glutamic acid-rich      | 0.3925825  | 0.362912 | 1.08176  | 8 | 0.310888 | 0.24        | 0.24        |
| Q91VW5 | Golga4             | Golgin subfamily A member 4 (tGolgin-      | 0.2275148  | 0.435469 | 0.52246  | 7 | 0.617473 | 0.54        | 0.44        |
| Q91VW9 | Zkscan3 Skz1 Zfp30 | Zinc finger protein with KRAB and SCA      | 0.1600414  | 1.019307 | 0.15701  | 6 | 0.880387 | 0.466666667 | 0.266666667 |
| Q91VX2 | Ubp2 Lig1          | Ubiquitin-associated protein 2 (UBAP-      | -0.0107222 | 0.144954 | -0.07397 | 8 | 0.94285  | 0.245833333 | 0.245833333 |
| Q91VY9 | Znf622 D15Ert806   | Cytoplasmic 60S subunit biogenesis f       | 0.3050217  | 0.497892 | 0.61263  | 7 | 0.559491 | 0.5         | 0.4         |
| Q91VZ6 | Smap1              | Stromal membrane-associated protein        | 0.027077   | 0.419426 | 0.06456  | 8 | 0.95011  | 0.483333333 | 0.483333333 |
| Q91W18 | Tdrd3              | Tudor domain-containing protein 3          | -0.1404658 | 0.399842 | -0.3513  | 8 | 0.734433 | 0.566666667 | 0.566666667 |
| Q91W36 | Usp3               | Ubiquitin carboxyl-terminal hydrolase      | -0.5427371 | 0.419356 | -1.29422 | 8 | 0.231699 | 0.5375      | 0.5375      |
| Q91W39 | Ncoa5              | Nuclear receptor coactivator 5 (NCoA-      | 0.2944682  | 0.175534 | 1.67756  | 8 | 0.131954 | 0.266666667 | 0.266666667 |
| Q91W43 | Gldc               | Glycine dehydrogenase (decarboxylatir      | 0.1834123  | 0.15025  | 1.22071  | 8 | 0.256951 | 0.364516129 | 0.364516129 |
| Q91W50 | Csde1 D3Jfr1       | Cold shock domain-containing protein       | 0.1176188  | 0.159706 | 0.73647  | 8 | 0.482479 | 0.3175      | 0.3175      |

|          |                   |                                           |            |          |          |    |          |             |             |
|----------|-------------------|-------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q91W67   | Ubl7              | Ubiquitin-like protein 7                  | 0.1854713  | 0.256202 | 0.72393  | 8  | 0.489737 | 0.386666667 | 0.386666667 |
| Q91W82   | Ube2e2            | Ubiquitin-conjugating enzyme E2 E2 (I     | -0.4336764 | 0.380782 | -1.13891 | 6  | 0.298161 | 0.25        | 0.05        |
| Q91W86   | Vps11             | Vacuolar protein sorting-associated pr    | -1.7088168 | 3.372357 | -0.50671 | 3  | 0.647252 | 0.7         | 0.2         |
| Q91W90   | Txndc5 Tlp46      | Thioredoxin domain-containing protei      | 0.0704152  | 0.144313 | 0.48793  | 8  | 0.638689 | 0.205555556 | 0.205555556 |
| Q91W96   | Anapc4 D5ErtD249  | Anaphase-promoting complex subunit        | -0.1271665 | 0.164049 | -0.77517 | 8  | 0.460535 | 0.446153846 | 0.446153846 |
| Q91WC0   | Setd3 D12ErtD771  | Actin-histidine N-methyltransferase (E    | -0.545794  | 0.275905 | -1.9782  | 8  | 0.083281 | 0.34        | 0.34        |
| Q91WD5   | Ndufs2            | NADH dehydrogenase [ubiquinone] iro       | 0.0013738  | 0.063091 | 0.02178  | 8  | 0.98316  | 0.3125      | 0.3125      |
| Q91WE2   | Psme3ip1 Fam192a  | PSME3-interacting protein (NEFA-inter     | 0.4512184  | 0.452945 | 0.99619  | 8  | 0.348332 | 0.455555556 | 0.455555556 |
| Q91WG2   | Rabep2 Rabpt5b    | Rab GTPase-binding effector protein 2     | -0.1513869 | 0.213296 | -0.70975 | 4  | 0.517043 | 0.65        | 0.25        |
| Q91WG4   | Elp2 Statip1      | Elongator complex protein 2 (ELP2) (S     | -0.106241  | 0.191031 | -0.55614 | 8  | 0.593322 | 0.396       | 0.396       |
| Q91WI7   | Itfg2             | KICSTOR complex protein ITFG2 (Integ      | -0.2179236 | 0.306896 | -0.71009 | 1  | 0.606909 | 0.7         | 0           |
| Q91WJ8-2 | Fubp1 D3ErtD330e  | Far upstream element-binding protein      | -0.048857  | 0.100485 | -0.48621 | 4  | 0.652253 | 0.6         | 0.2         |
| Q91WK1   | Spryd4            | SPRY domain-containing protein 4          | 0.0782816  | 0.482146 | 0.16236  | 7  | 0.875609 | 0.4         | 0.3         |
| Q91WK2   | Eif3h Eif3s3      | Eukaryotic translation initiation factor  | 0.3224694  | 0.155114 | 2.07892  | 8  | 0.071235 | 0.312       | 0.312       |
| Q91WK5   | Gcsh              | Glycine cleavage system H protein, mit    | 0.1804593  | 0.283061 | 0.63753  | 8  | 0.541593 | 0.3         | 0.3         |
| Q91WM1   | Strbp Spnr        | Spermatid perinuclear RNA-binding pr      | 0.0046619  | 0.163829 | 0.02846  | 8  | 0.977996 | 0.352380952 | 0.352380952 |
| Q91WM3   | Rrp9 Rnu3ip2 U3-5 | U3 small nucleolar RNA-interacting pr     | 0.4896206  | 0.369688 | 1.32442  | 8  | 0.221949 | 0.471428571 | 0.471428571 |
| Q91WN1   | Dnajc9            | DnaJ homolog subfamily C member 9         | 0.1011136  | 0.140803 | 0.71812  | 8  | 0.493119 | 0.30952381  | 0.30952381  |
| Q80ZX0   | Sec24b            | SEC24 homolog B, COPII coat comple        | -0.4085491 | 0.109755 | -3.72236 | 8  | 0.005852 | 0.282352941 | 0.282352941 |
| Q91WS0   | Cisd1 D10ErtD214  | CDGSH iron-sulfur domain-containing       | 0.1992869  | 0.206932 | 0.96306  | 8  | 0.363722 | 0.133333333 | 0.133333333 |
| Q91WT4   | Dnajc17           | DnaJ homolog subfamily C member 17        | 0.2432004  | 0.279474 | 0.87021  | 8  | 0.409538 | 0.38        | 0.38        |
| Q91WU5   | As3mt Cyt19       | Arsenite methyltransferase (EC 2.1.1.1    | 0.0193011  | 0.258913 | 0.07455  | 7  | 0.942661 | 0.566666667 | 0.466666667 |
| Q91WV0   | Dr1               | Protein Dr1 (Down-regulator of transc     | 0.3244465  | 0.804219 | 0.40343  | 8  | 0.6972   | 0.266666667 | 0.266666667 |
| Q91X20   | Ash2l             | Set1/Ash2 histone methyltransferase       | 0.1462762  | 0.248368 | 0.58895  | 8  | 0.572146 | 0.469230769 | 0.469230769 |
| Q91X58   | Zfand2b Airap1    | AN1-type zinc finger protein 2B (Arsen    | -0.0272736 | 0.248774 | -0.10963 | 5  | 0.916965 | 0.65        | 0.35        |
| Q91X96   | Rabif             | Guanine nucleotide exchange factor M      | -0.2276839 | 0.800655 | -0.28437 | 3  | 0.794624 | 0.5         | 0           |
| Q9D5V6   | Syap1             | Synapse-associated protein 1 (BSD do      | -0.4146758 | 0.161686 | -2.5647  | 7  | 0.037295 | 0.5         | 0.4         |
| Q91XA2   | Golm1 Golph2      | Golgi membrane protein 1 (Golgi meml      | -0.0836434 | 0.282629 | -0.29595 | 7  | 0.775857 | 0.5         | 0.4         |
| Q91XD6   | Vps36             | Vacuolar protein-sorting-associated pr    | 0.2239818  | 0.430056 | 0.52082  | 6  | 0.621146 | 0.44        | 0.24        |
| Q91XF0   | Pnpo              | Pyridoxine-5'-phosphate oxidase (EC : Inf |            | NA       | NA       | NA | NA       | NA          | NA          |
| Q91XH5   | Spr               | Sepiapterin reductase (EC 1.1.1.153)      | 0.2525102  | 0.240225 | 1.05114  | 8  | 0.323907 | 0.276470588 | 0.276470588 |
| Q91XL9   | Osbpl1a Orp1 Orp1 | Oxysterol-binding protein-related prot    | 0.2358299  | 0.10988  | 2.14624  | 1  | 0.27758  | 0.7         | 0           |
| Q91XQ0   | Dnah8 Dnahc8      | Dynein axonemal heavy chain 8 (Axone      | 0.3560493  | 0.466314 | 0.76354  | 7  | 0.470089 | 0.566666667 | 0.466666667 |
| Q91XU0   | Wrnip1 Whip       | ATPase WRNIP1 (EC 3.6.1.-) (Werner h      | 0.1262099  | 0.420965 | 0.29981  | 7  | 0.773028 | 0.65        | 0.55        |
| Q91XU3   | Pip4k2c Pip5k2c   | Phosphatidylinositol 5-phosphate 4-k      | -0.165042  | 0.327153 | -0.50448 | 7  | 0.629414 | 0.45        | 0.35        |
| Q91XV3   | Basp1 Nap22       | Brain acid soluble protein 1 (22 kDa n    | 0.1855378  | 0.451006 | 0.41139  | 8  | 0.691589 | 0.263636364 | 0.263636364 |
| Q91XX1   | Pcdhgc3           | Protocadherin gamma C3 (Protocadhe        | 0.6996408  | 0.380397 | 1.83924  | 5  | 0.12527  | 0.6         | 0.3         |
| Q91Y86   | Mapk8 Jnk1 Prkm8  | Mitogen-activated protein kinase 8 (MA    | 0.4179705  | 0.185708 | 2.25069  | 8  | 0.054509 | 0.375       | 0.375       |

|        |                     |                                           |            |          |          |   |          |             |             |
|--------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q91YD3 | Dcp1a Mitc1 Smif    | mRNA-decapping enzyme 1A (EC 3.6.1        | 0.2504688  | 0.259486 | 0.96525  | 8 | 0.362689 | 0.371428571 | 0.371428571 |
| Q91YD9 | Wasl                | Actin nucleation-promoting factor WA      | -0.122021  | 0.219969 | -0.55472 | 8 | 0.594251 | 0.316666667 | 0.316666667 |
| Q8CHT0 | Aldh4a1             | Delta-1-pyrroline-5-carboxylate dehyd     | -0.4205252 | 0.181964 | -2.31104 | 8 | 0.049609 | 0.316666667 | 0.316666667 |
| Q91YE6 | Ipo9 Imp9 Ranbp9    | Importin-9 (Imp9) (Importin-9a) (Imp9     | -0.0994448 | 0.19549  | -0.50869 | 8 | 0.624696 | 0.286842105 | 0.286842105 |
| Q91YE7 | Rbm5 Luca15         | RNA-binding protein 5 (Putative tumo      | -0.0380156 | 0.096304 | -0.39475 | 8 | 0.703346 | 0.322222222 | 0.322222222 |
| Q91YH5 | Atl3                | Atlastin-3 (EC 3.6.5.-)                   | 0.2097177  | 0.32007  | 0.65522  | 7 | 0.533256 | 0.5         | 0.4         |
| Q91YI0 | Asl                 | Argininosuccinate lyase (ASAL) (EC 4.3    | -0.0958847 | 0.22428  | -0.42752 | 8 | 0.680274 | 0.283333333 | 0.283333333 |
| Q91YI4 | Arrb2               | Beta-arrestin-2 (Arrestin beta-2)         | -0.3419172 | 0.336673 | -1.01558 | 3 | 0.384612 | 0.666666667 | 0.166666667 |
| Q91YJ2 | Snx4                | Sorting nexin-4                           | 0.3607808  | 0.260208 | 1.38651  | 6 | 0.214914 | 0.2         | 0           |
| Q91YJ3 | Thyn1 Thy28         | Thymocyte nuclear protein 1 (Thymocy      | 0.4781896  | 0.359835 | 1.32891  | 8 | 0.220528 | 0.266666667 | 0.266666667 |
| Q91YJ5 | Mtif2               | Translation initiation factor IF-2, mitoc | 0.423157   | 0.621732 | 0.68061  | 8 | 0.51533  | 0.3         | 0.3         |
| Q91YK2 | Rrp1b               | Ribosomal RNA processing protein 1 h      | 0.0991763  | 0.160223 | 0.61899  | 7 | 0.555525 | 0.42        | 0.32        |
| Q91YL2 | Rnf126              | E3 ubiquitin-protein ligase RNF126 (E     | 0.2645042  | 0.33499  | 0.78959  | 8 | 0.452533 | 0.411111111 | 0.411111111 |
| Q91YM2 | Arhgap35 Grlf1 Kiaa | Rho GTPase-activating protein 35 (Glu     | -0.0118694 | 0.172989 | -0.06861 | 8 | 0.946981 | 0.435       | 0.435       |
| Q91YM4 | Tbrg4 Kiaa0948      | FAST kinase domain-containing protei      | -0.5271787 | 0.311645 | -1.6916  | 8 | 0.129184 | 0.433333333 | 0.433333333 |
| Q91YN9 | Bag2                | BAG family molecular chaperone regul      | 0.2285618  | 0.537829 | 0.42497  | 8 | 0.682057 | 0.375       | 0.375       |
| Q91YP2 | Nln                 | Neurolysin, mitochondrial (EC 3.4.24.     | -0.0013059 | 0.237836 | -0.00549 | 8 | 0.995753 | 0.5         | 0.5         |
| Q91YP3 | Dera                | Deoxyribose-phosphate aldolase (DER       | -0.3475103 | 0.112314 | -3.09409 | 1 | 0.199008 | 0.7         | 0           |
| Q91YQ5 | Rpn1                | Dolichyl-diphosphooligosaccharide--p      | -0.0221604 | 0.235162 | -0.09423 | 8 | 0.92724  | 0.236585366 | 0.236585366 |
| Q91YR1 | Twf1 Ptk9           | Twinfilin-1 (Protein A6)                  | 0.3083054  | 0.189269 | 1.62893  | 8 | 0.141977 | 0.306666667 | 0.306666667 |
| Q91YR7 | Prpf6               | Pre-mRNA-processing factor 6 (PRP6 f      | 0.1437649  | 0.403826 | 0.35601  | 8 | 0.731041 | 0.391304348 | 0.391304348 |
| Q91YR9 | Ptgr1 Ltb4dh        | Prostaglandin reductase 1 (PRG-1) (15     | 0.0943946  | 0.312883 | 0.30169  | 6 | 0.77307  | 0.475       | 0.275       |
| Q91YS4 | Klc2                | Kinesin light chain                       | 0.2892435  | 0.198825 | 1.45476  | 8 | 0.18382  | 0.393333333 | 0.393333333 |
| Q91YS8 | Camk1               | Calcium/calmodulin-dependent protei       | -0.0908922 | 0.24946  | -0.36436 | 8 | 0.725035 | 0.3         | 0.3         |
| Q91YT0 | Ndufv1              | NADH dehydrogenase [ubiquinone] fla       | 0.008771   | 0.106394 | 0.08244  | 8 | 0.936323 | 0.368421053 | 0.368421053 |
| Q91YT7 | Ythdf2              | YTH domain-containing family protein      | 0.2610527  | 0.159278 | 1.63898  | 8 | 0.139851 | 0.227272727 | 0.227272727 |
| Q91YV0 | Tcf4                | Transcription factor 4                    | -0.0335858 | 0.395408 | -0.08494 | 2 | 0.940047 | 0.6         | 0           |
| Q91YW3 | Dnajc3 P58ipk       | DnaJ homolog subfamily C member 3 (       | 0.1427433  | 0.246057 | 0.58012  | 8 | 0.577801 | 0.466666667 | 0.466666667 |
| Q91ZA3 | Pcca                | Propionyl-CoA carboxylase alpha chair     | -0.4237785 | 0.177403 | -2.38879 | 8 | 0.043938 | 0.4         | 0.4         |
| Q91Z31 | Ptbp2 Brptb Nptb    | Polypyrimidine tract-binding protein 2    | 0.0911128  | 0.14475  | 0.62945  | 8 | 0.546606 | 0.222222222 | 0.222222222 |
| Q91Z38 | Ttc1                | Tetratricopeptide repeat protein 1 (TPF   | 0.443201   | 0.23481  | 1.88749  | 8 | 0.095795 | 0.316666667 | 0.316666667 |
| Q91Z49 | Fytd1 Uif           | UAP56-interacting factor (Forty-two-th    | -0.1961071 | 0.369209 | -0.53116 | 8 | 0.609737 | 0.233333333 | 0.233333333 |
| Q91Z53 | Grhpr Glxr          | Glyoxylate reductase/hydroxypyruvate      | 0.3139018  | 0.184327 | 1.70296  | 8 | 0.126983 | 0.36        | 0.36        |
| Q91Z67 | Srgap2 Fbp27 Fnbp   | SLIT-ROBO Rho GTPase-activating prot      | -0.0139222 | 0.114512 | -0.12158 | 8 | 0.906231 | 0.465217391 | 0.465217391 |
| G3X926 | Rpf2                | Ribosome production factor 2 homolc       | -0.4513891 | 0.183912 | -2.45437 | 7 | 0.043826 | 0.55        | 0.45        |
| Q91ZD4 | Vangl2 Lpp1 Ltap    | Vang-like protein 2 (Loop-tail protein 1  | -0.3416264 | 0.199122 | -1.71567 | 8 | 0.124561 | 0.354545455 | 0.354545455 |
| Q91ZJ5 | Ugp2                | UTP--glucose-1-phosphate uridylyltrar     | 0.3795717  | 0.311818 | 1.21729  | 8 | 0.258181 | 0.4         | 0.4         |
| Q91ZM2 | Sh2b1 Sh2bpsm1      | SH2B adapter protein 1 (Pro-rich, PH ε    | 0.4995536  | 0.388376 | 1.28626  | 6 | 0.245753 | 0.6         | 0.4         |

|          |                    |                                                                     |            |          |          |   |          |             |             |
|----------|--------------------|---------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9JHP7-2 | Poglut2 Ep58 Kdelc | Protein O-glucosyltransferase 2 (EC 2.4.1.10)                       | -0.4520936 | 0.178098 | -2.53845 | 6 | 0.044173 | 0.55        | 0.35        |
| Q91ZT5   | Fgd4               | FYVE, RhoGEF and PH domain-containing protein                       | 0.5922929  | 0.538013 | 1.10089  | 2 | 0.385731 | 0.6         | 0           |
| Q91ZU6   | Dst Bpag1 Macf2    | Dystonin (Bullous pemphigoid antigen)                               | 0.2968214  | 0.223598 | 1.32748  | 7 | 0.226005 | 0.475       | 0.375       |
| Q91ZW3   | Smarca5 Snf2h      | SWI/SNF-related matrix-associated actin-binding protein 1           | -0.2144977 | 0.162475 | -1.32019 | 8 | 0.223291 | 0.333333333 | 0.333333333 |
| Q3UHK6   | Tenm4 Doc4 Kiaa13  | Teneurin-4 (Ten-4) (Downstream of Cdk5)                             | -0.4586505 | 0.104373 | -4.39433 | 3 | 0.021838 | 0.533333333 | 0.033333333 |
| Q91ZZ2   | Rapgef1 Grf2       | Guanine nucleotide exchange factor                                  | 0.3467954  | 1.011031 | 0.34301  | 4 | 0.748858 | 0.65        | 0.25        |
| Q91ZZ3   | Snca               | Beta-synuclein                                                      | -0.323069  | 0.37925  | -0.85186 | 3 | 0.456892 | 0.5         | 0           |
| Q920A5   | Scp1 Risc          | Retinoid-inducible serine carboxypeptidase                          | 0.6313106  | 0.280832 | 2.248    | 8 | 0.054738 | 0.425       | 0.425       |
| Q920B9   | Supt16h Fact140 Fc | FACT complex subunit SPT16 (Chromatin assembly factor 1)            | -0.279803  | 0.184306 | -1.51815 | 8 | 0.167457 | 0.223255814 | 0.223255814 |
| Q920D3   | Med28 Fksg20       | Mediator of RNA polymerase II transcription                         | 0.1675109  | 0.501987 | 0.3337   | 8 | 0.747188 | 0.46        | 0.46        |
| Q920E5   | Fdps               | Farnesyl pyrophosphate synthase (FPP synthase)                      | 0.2329024  | 0.200246 | 1.16308  | 8 | 0.278314 | 0.218181818 | 0.218181818 |
| Q920L1   | Fads1              | Acyl-CoA (8-3)-desaturase (EC 1.14.14.1)                            | 0.1510726  | 0.196136 | 0.77024  | 8 | 0.463291 | 0.328571429 | 0.328571429 |
| Q920Q4   | Vps16              | Vacuolar protein sorting-associated protein 16                      | 0.9392859  | 0.624238 | 1.50469  | 7 | 0.176117 | 0.466666667 | 0.366666667 |
| Q920Q6   | Msi2 Msi2h         | RNA-binding protein Musashi homolog 2                               | 0.5152975  | 0.326365 | 1.5789   | 8 | 0.153012 | 0.36        | 0.36        |
| Q920Q8   | Ivns1abp Kiaa0850  | Influenza virus NS1A-binding protein 1                              | 0.37355    | 0.21687  | 1.72246  | 8 | 0.123284 | 0.4         | 0.4         |
| Q921C5-2 | Bicd2 Kiaa0699     | Protein bicaudal D homolog 2 (Bic-D 2)                              | 0.4131825  | 0.296979 | 1.39129  | 8 | 0.201607 | 0.4875      | 0.4875      |
| Q921E2   | Rab31              | Ras-related protein Rab-31                                          | 3.0322776  | 0.385363 | 7.86863  | 1 | 0.080475 | 0.7         | 0           |
| Q921E6   | Eed                | Polycomb protein EED                                                | 0.4763536  | 0.340581 | 1.39865  | 8 | 0.199469 | 0.444444444 | 0.444444444 |
| Q921F2   | Tardbp Tdp43       | TAR DNA-binding protein 43 (TDP-43)                                 | 0.1416416  | 0.096121 | 1.47357  | 8 | 0.178821 | 0.325       | 0.325       |
| Q921F4   | Hnrnp11 Hnrp11     | Heterogeneous nuclear ribonucleoprotein                             | -0.0520809 | 0.140813 | -0.36986 | 8 | 0.721088 | 0.24        | 0.24        |
| Q921G6   | Lrch4              | Leucine-rich repeat and calponin homology domain-containing protein | -0.1249397 | 0.116443 | -1.07297 | 8 | 0.314581 | 0           | 0           |
| Q921G7   | Etf1dh             | Electron transfer flavoprotein-ubiquinone reductase                 | 0.0638863  | 0.206013 | 0.31011  | 8 | 0.764404 | 0.353846154 | 0.353846154 |
| Q921G8   | Tubgcp2 Gcp2       | Gamma-tubulin complex component 2                                   | -0.0029995 | 0.156688 | -0.01914 | 8 | 0.985196 | 0.471428571 | 0.471428571 |
| Q921H8   | Acaa1a Acaa1       | 3-ketoacyl-CoA thiolase A, peroxisomal                              | 0.1987103  | 0.103119 | 1.927    | 8 | 0.090138 | 0.304166667 | 0.304166667 |
| Q921H9   | Coa7 Selrc1        | Cytochrome c oxidase assembly factor                                | -0.0102667 | 0.461882 | -0.02223 | 8 | 0.98281  | 0.3         | 0.3         |
| Q921I1   | Tf Trf             | Serotransferrin (Transferrin) (Beta-1 microglobulin)                | 0.2968858  | 0.41375  | 0.71755  | 8 | 0.493453 | 0.26        | 0.26        |
| Q921I9   | Exosc4 Rrp41       | Exosome complex component RRP41                                     | 0.0050966  | 0.246236 | 0.0207   | 8 | 0.983993 | 0.414285714 | 0.414285714 |
| Q921J2   | Rheb               | GTP-binding protein Rheb (Ras homolog)                              | 0.0240077  | 0.371744 | 0.06458  | 8 | 0.950092 | 0.3         | 0.3         |
| Q921J4   | Ube2s E2epf        | Ubiquitin-conjugating enzyme E2 S (Ubiquitin-conjugating enzyme E2) | 0.1061396  | 0.178117 | 0.5959   | 6 | 0.573021 | 0.625       | 0.425       |
| Q921K2   | Parp1 Adprt1       | Poly [ADP-ribose] polymerase (EC 2.4.1.13)                          | -0.1970747 | 0.196262 | -1.00414 | 8 | 0.344712 | 0.197260274 | 0.197260274 |
| Q921K9   | Bcl7b              | B-cell CLL/lymphoma 7 protein family 1                              | 0.1576436  | 0.318522 | 0.49492  | 5 | 0.641634 | 0.3         | 0           |
| Q921L3   | Tmco1              | Calcium load-activated calcium channel                              | 0.0606473  | 0.282894 | 0.21438  | 8 | 0.835613 | 0.225       | 0.225       |
| Q921L5   | Cog2 Ldlc          | Conserved oligomeric Golgi complex subunit                          | 0.4783827  | 0.354773 | 1.34842  | 7 | 0.219521 | 0.55        | 0.45        |
| Q921M3   | Sf3b3 Kiaa0017     | Splicing factor 3B subunit 3 (Pre-mRNA splicing factor)             | -0.1319256 | 0.1898   | -0.69508 | 8 | 0.506689 | 0.277777778 | 0.277777778 |
| Q921M4   | Golga2             | Golgin subfamily A member 2 (130 kDa)                               | 0.2033262  | 0.147652 | 1.37707  | 8 | 0.205792 | 0.546666667 | 0.546666667 |
| Q921M7   | Cyri1 Cyri Fam49b  | CYFIP-related Rac1 interactor B (Protein)                           | 0.0282204  | 0.135248 | 0.20866  | 8 | 0.839931 | 0.208333333 | 0.208333333 |
| Q921N6   | Ddx27              | Probable ATP-dependent RNA helicase                                 | -0.080246  | 0.289    | -0.27767 | 8 | 0.788308 | 0.5125      | 0.5125      |
| Q921P9   | Tceal1             | Transcription elongation factor A protein                           | -0.0222012 | 0.392654 | -0.05654 | 8 | 0.956297 | 0.4         | 0.4         |

|          |                    |                                         |            |          |          |   |          |             |             |
|----------|--------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q921S7   | Mrpl37             | Large ribosomal subunit protein mL37    | 0.2164113  | 0.267534 | 0.80891  | 8 | 0.441957 | 0.516666667 | 0.516666667 |
| Q921T2-2 | Tor1aip1           | Torsin-1A-interacting protein 1 (Lamin  | 0.0925272  | 0.246511 | 0.37535  | 8 | 0.717159 | 0.411111111 | 0.411111111 |
| Q921W0   | Chmp1a Chmp1 Pc    | Charged multivesicular body protein 1   | 0.9246865  | 0.685782 | 1.34837  | 6 | 0.226211 | 0.533333333 | 0.333333333 |
| Q921W2   | Tia1               | Tia1 cytotoxic granule-associated RNA   | 0.0918613  | 0.165808 | 0.55402  | 8 | 0.594708 | 0.326666667 | 0.326666667 |
| Q921W4   | Cryz1              | Quinone oxidoreductase-like protein 1   | 0.3772759  | 0.399155 | 0.94519  | 8 | 0.372231 | 0.485714286 | 0.485714286 |
| Q921X6   | Polr3f             | DNA-directed RNA polymerase III subu    | 0.1158178  | 0.273521 | 0.42343  | 6 | 0.686738 | 0.633333333 | 0.433333333 |
| Q921X9   | Pdia5 Pdir         | Protein disulfide-isomerase A5 (EC 5.3  | -0.1449277 | 0.818352 | -0.1771  | 5 | 0.866383 | 0.6         | 0.3         |
| Q921Y0   | Mob1a Mobk1b Mot   | MOB kinase activator 1A (Mob1 homolo    | -0.042194  | 0.397918 | -0.10604 | 8 | 0.918164 | 0.133333333 | 0.133333333 |
| Q921Y2   | Imp3               | U3 small nucleolar ribonucleoprotein p  | 0.0710425  | 0.522291 | 0.13602  | 1 | 0.913935 | 0.7         | 0           |
| Q922B2   | Dars1 Dars         | Aspartate--tRNA ligase, cytoplasmic (E  | -0.0899044 | 0.111869 | -0.80366 | 8 | 0.444815 | 0.25625     | 0.25625     |
| Q922D4   | Ppp6r3 D19Ert70    | Serine/threonine-protein phosphatase    | -0.1427496 | 0.107062 | -1.33334 | 8 | 0.219136 | 0.377777778 | 0.377777778 |
| Q922D8   | Mthfd1             | C-1-tetrahydrofolate synthase, cytopl   | 0.0967397  | 0.14858  | 0.6511   | 8 | 0.533237 | 0.293023256 | 0.293023256 |
| Q922E4   | Pcyt2              | Ethanolamine-phosphate cytidylyltran    | 0.4330689  | 0.226322 | 1.91351  | 8 | 0.092032 | 0.48        | 0.48        |
| Q922F4   | Tubb6              | Tubulin beta-6 chain                    | -0.3558317 | 0.344787 | -1.03203 | 8 | 0.332244 | 0.377777778 | 0.377777778 |
| Q6PDK2   | Kmt2d Mll2 Mll4    | Histone-lysine N-methyltransferase 2C   | -0.4631353 | 0.120417 | -3.84609 | 3 | 0.031022 | 0.65        | 0.15        |
| Q922H2   | Pdk3               | [Pyruvate dehydrogenase (acetyl-transf  | 0.2427663  | 0.374987 | 0.6474   | 7 | 0.538018 | 0.525       | 0.425       |
| Q922H4   | Gmppa              | Mannose-1-phosphate guanylyltransfer    | -0.1134793 | 0.190345 | -0.59618 | 8 | 0.567538 | 0.44        | 0.44        |
| Q922H9   | Znf330 Noa36 Zfp3  | Zinc finger protein 330 (Nucleolar aut  | 0.0683096  | 0.323677 | 0.21104  | 6 | 0.839839 | 0.6         | 0.4         |
| Q922J3   | Clip1 Kiaa4046 Rsn | CAP-Gly domain-containing linker prot   | 0.0271608  | 0.249782 | 0.10874  | 8 | 0.916088 | 0.552941176 | 0.552941176 |
| Q922J9   | Far1               | Fatty acyl-CoA reductase 1 (EC 1.2.1.8  | 0.226766   | 0.255366 | 0.88801  | 8 | 0.400448 | 0.333333333 | 0.333333333 |
| Q922M7   |                    | Ashwin                                  | 0.559384   | 0.337516 | 1.65736  | 8 | 0.136036 | 0.4625      | 0.4625      |
| Q922P8   | Tmem132a Kiaa158   | Transmembrane protein 132A (HSPA5       | -0.3775902 | 0.426391 | -0.88555 | 5 | 0.416411 | 0.6         | 0.3         |
| Q922Q1   | Mtarc2 Marc2 Mg87  | Mitochondrial amidoxime reducing con    | 0.0578908  | 0.353226 | 0.16389  | 8 | 0.873881 | 0.46        | 0.46        |
| Q922Q2   | Riok1              | Serine/threonine-protein kinase RIO1 (  | -0.5668997 | 0.311772 | -1.81832 | 2 | 0.210641 | 0.6         | 0           |
| Q922Q4   | Pycr2              | Pyrroline-5-carboxylate reductase 2 (P  | 0.0679849  | 0.183196 | 0.37111  | 8 | 0.720194 | 0.341666667 | 0.341666667 |
| Q922Q8   | Lrrc59             | Leucine-rich repeat-containing protein  | 0.1653698  | 0.203655 | 0.81201  | 8 | 0.440276 | 0.3         | 0.3         |
| Q922R5   | Ppp4r3b Kiaa1387   | Serine/threonine-protein phosphatase    | 1.3097406  | 0.928237 | 1.411    | 5 | 0.217329 | 0.566666667 | 0.266666667 |
| Q922S8   | Kif2c              | Kinesin-like protein KIF2C (Mitotic cen | -0.0612766 | 0.23643  | -0.25917 | 8 | 0.802045 | 0.257142857 | 0.257142857 |
| Q922U1   | Prpf3              | U4/U6 small nuclear ribonucleoprotei    | 0.021898   | 0.222339 | 0.09849  | 8 | 0.923967 | 0.361111111 | 0.361111111 |
| Q922V4   | Plrg1              | Pleiotropic regulator 1                 | -0.013823  | 0.103292 | -0.13382 | 8 | 0.896846 | 0.266666667 | 0.266666667 |
| Q922W5   | Pycr1              | Pyrroline-5-carboxylate reductase 1, m  | 0.2855088  | 0.208435 | 1.36978  | 5 | 0.229068 | 0.55        | 0.25        |
| Q922X9   | Prmt7 Kiaa1933     | Protein arginine N-methyltransferase 7  | 0.225035   | 0.348938 | 0.64491  | 8 | 0.537034 | 0.4625      | 0.4625      |
| Q922Y1   | Ubxn1 D19Ert721    | UBX domain-containing protein 1 (Pro    | -0.1309297 | 0.203486 | -0.64343 | 8 | 0.537946 | 0.33        | 0.33        |
| Q923B1   | Dbr1               | Lariat debranching enzyme (EC 3.1.4.-)  | 0.0477752  | 0.273311 | 0.1748   | 8 | 0.865578 | 0.422222222 | 0.422222222 |
| Q923D2   | Blvrb Scan         | Flavin reductase (NADPH) (FR) (EC 1.5   | 0.1842144  | 0.1908   | 0.96548  | 8 | 0.362578 | 0.385714286 | 0.385714286 |
| Q923D4   | Sf3b5 Sf3b10       | Splicing factor 3B subunit 5 (SF3b5) (I | 0.2473872  | 0.329725 | 0.75028  | 8 | 0.47457  | 0.116666667 | 0.116666667 |
| Q923D5   | Wbp11 Sipp1        | VW domain-binding protein 11 (WBP-      | 0.1434038  | 0.292685 | 0.48996  | 8 | 0.637315 | 0.366666667 | 0.366666667 |
| Q923E4   | Sirt1 Sir2l1       | NAD-dependent protein deacetylase si    | 0.2329981  | 0.341921 | 0.68144  | 7 | 0.517497 | 0.6         | 0.5         |

|          |                    |                                         |            |          |          |   |          |             |             |
|----------|--------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q923F1   | Clns1a             | Methylosome subunit pICln (Chloride     | 0.0965072  | 0.1405   | 0.68688  | 8 | 0.511573 | 0.24        | 0.24        |
| Q923G2   | Polr2h             | DNA-directed RNA polymerases I, II, an  | -0.7093316 | 0.595193 | -1.19177 | 8 | 0.267505 | 0.5         | 0.5         |
| Q923W1   | Tgs1 Ncoa6ip Pimt  | Trimethylguanosine synthase (EC 2.1.1   | -0.2344253 | 0.269822 | -0.86881 | 8 | 0.410255 | 0.566666667 | 0.566666667 |
| Q923X4   | Glr2 Grx2          | Glutaredoxin-2, mitochondrial           | 0.1493651  | 0.448114 | 0.33332  | 3 | 0.76083  | 0.5         | 0           |
| Q924A0-2 | Tcf7l2 Tcf4        | Transcription factor 7-like 2 (HMG box  | 1.5180914  | 1.897328 | 0.80012  | 1 | 0.5704   | 0.7         | 0           |
| Q924A2   | Cic Kiaa0306       | Protein capicua homolog                 | 0.1068341  | 0.750642 | 0.14232  | 2 | 0.899868 | 0.6         | 0           |
| Q924C1   | Xpo5 Kiaa1291 Ran  | Exportin-5 (Exp5) (Ran-binding protei   | -0.0994466 | 0.278856 | -0.35662 | 8 | 0.730597 | 0.307894737 | 0.307894737 |
| Q924H2   | Med15 Pcqap        | Mediator of RNA polymerase II transcrip | 0.4404262  | 0.263567 | 1.67102  | 8 | 0.133263 | 0.45        | 0.45        |
| Q924H7   | Wac Kiaa1844       | WW domain-containing adapter protein    | -0.0703107 | 0.383468 | -0.18335 | 8 | 0.859082 | 0.421428571 | 0.421428571 |
| Q91ZR2   | Snx18 Snag1        | Sorting nexin-18 (Sorting nexin-associ  | -0.465971  | 0.159748 | -2.91691 | 5 | 0.033133 | 0.5         | 0.2         |
| Q924M7   | Mpi Mpi1 Pmi       | Mannose-6-phosphate isomerase (EC       | -0.0607555 | 0.261387 | -0.23243 | 8 | 0.822036 | 0.358333333 | 0.358333333 |
| Q9EPU4   | Cpsf1 Cpsf160      | Cleavage and polyadenylation specifici  | -0.4756056 | 0.200526 | -2.37179 | 8 | 0.04512  | 0.457142857 | 0.457142857 |
| Q924W5   | Smc6 Kiaa4103 Sm   | Structural maintenance of chromosom     | 1.0922384  | 1.337891 | 0.81639  | 3 | 0.474075 | 0.5         | 0           |
| Q924X6   | Lrp8 Apoer2        | Low-density lipoprotein receptor-relat  | -0.8736979 | 1.013542 | -0.86202 | 3 | 0.45207  | 0.5         | 0           |
| Q924Z4   | Cers2 Lass2 Trh3   | Ceramide synthase 2 (CerS2) (LAG1 lo    | -0.5474804 | 0.289935 | -1.88829 | 7 | 0.100929 | 0.4         | 0.3         |
| Q924Z6   | Xpo6 Ranbp20       | Exportin-6 (Exp6) (Ran-binding protei   | -1.1865483 | 1.080361 | -1.09829 | 2 | 0.386635 | 0.6         | 0           |
| Q925B0   | Pawr Par4          | PRKC apoptosis WT1 regulator protein    | -0.4015172 | 0.314828 | -1.27536 | 8 | 0.23797  | 0.375       | 0.375       |
| Q925E7   | Ppp2r2d D7Ert75    | Serine/threonine-protein phosphatase    | 0.2309723  | 0.746528 | 0.3094   | 7 | 0.766027 | 0.366666667 | 0.266666667 |
| Q925F2   | Esam Esam1         | Endothelial cell-selective adhesion mol | -0.1381744 | 0.428442 | -0.3225  | 4 | 0.763224 | 0.4         | 0           |
| Q925H1   | Trps1              | Zinc finger transcription factor Trps1  | 0.0371767  | 0.377321 | 0.09853  | 3 | 0.927727 | 0.5         | 0           |
| Q925I1   | Atad3 Atad3a Kiaa1 | ATPase family AAA domain-containing     | 0.0484228  | 0.129059 | 0.3752   | 8 | 0.717265 | 0.35        | 0.35        |
| Q925J9   | Med1 Crsp210 Drip  | Mediator of RNA polymerase II transcrip | -0.1175834 | 0.378113 | -0.31097 | 8 | 0.763769 | 0.51        | 0.51        |
| Q93092   | Taldo1 Tal Taldo   | Transaldolase (EC 2.2.1.2)              | 0.3113075  | 0.316252 | 0.98436  | 8 | 0.353767 | 0.208333333 | 0.208333333 |
| Q99020   | Hnrnpab Cbf-a Cgb  | Heterogeneous nuclear ribonucleopro     | 0.0809441  | 0.190337 | 0.42527  | 8 | 0.68185  | 0.232       | 0.232       |
| Q3U564   | Dcp1b              | mRNA-decapping enzyme 1B (EC 3.6.1      | -0.4913564 | 0.149368 | -3.28958 | 5 | 0.021724 | 0.6         | 0.3         |
| Q99J36   | Thumpd1            | THUMP domain-containing protein 1       | 0.2243727  | 0.119272 | 1.88118  | 8 | 0.096729 | 0.321428571 | 0.321428571 |
| Q99J45   | Nrbp1 Madm Nrbp    | Nuclear receptor-binding protein (HLS   | 0.1252211  | 0.232792 | 0.53791  | 8 | 0.605276 | 0.44        | 0.44        |
| Q99J62   | Rfc4               | Replication factor C subunit 4 (Activat | 0.3164343  | 0.243392 | 1.3001   | 8 | 0.229771 | 0.413333333 | 0.413333333 |
| Q99J77   | Nans Sas           | Sialic acid synthase (N-acetylneuramin  | 0.260125   | 0.189193 | 1.37492  | 8 | 0.20643  | 0.278571429 | 0.278571429 |
| Q99J95   | Cdk9               | Cyclin-dependent kinase 9 (EC 2.7.11.   | -0.7068174 | 0.365452 | -1.93409 | 8 | 0.089156 | 0.4         | 0.4         |
| Q99J99   | Mpst               | 3-mercaptopyruvate sulfurtransferase    | -0.0620895 | 0.245407 | -0.25301 | 8 | 0.806644 | 0.253333333 | 0.253333333 |
| Q99JB2   | Stoml2 Slp2        | Stomatin-like protein 2, mitochondrial  | 0.1946272  | 0.178947 | 1.08762  | 8 | 0.30844  | 0.216666667 | 0.216666667 |
| Q99JF5   | Mvd                | Diphosphomevalonate decarboxylase       | 0.4515929  | 0.218616 | 2.06569  | 8 | 0.072715 | 0.3625      | 0.3625      |
| Q99JF8   | Psip1 Ledgf        | PC4 and SFRS1-interacting protein (Le   | 0.6759825  | 0.338411 | 1.99752  | 8 | 0.080826 | 0.511764706 | 0.511764706 |
| Q99JH1   | Rpp25l             | Ribonuclease P protein subunit p25-lil  | -0.0958522 | 0.321548 | -0.2981  | 7 | 0.774283 | 0.4         | 0.3         |
| Q99JI4   | Psmd6              | 26S proteasome non-ATPase regulator     | 0.2482775  | 0.594458 | 0.41765  | 8 | 0.687185 | 0.327586207 | 0.327586207 |
| Q99JI6   | Rap1b              | Ras-related protein Rap-1b (EC 3.6.5.2  | -0.0863668 | 0.215969 | -0.3999  | 8 | 0.699693 | 0.24        | 0.24        |
| Q99JN2   | Klhl22             | Kelch-like protein 22                   | -0.0463778 | 0.611821 | -0.0758  | 6 | 0.94204  | 0.2         | 0           |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q99JP0   | Map4k3             | Mitogen-activated protein kinase kinase  | 0.5408632  | 0.681505 | 0.79363  | 6 | 0.457639 | 0.4         | 0.2         |
| Q99JP4   | Cdc26              | Anaphase-promoting complex subunit       | 0.1957233  | 0.166842 | 1.17311  | 8 | 0.274496 | 0.3         | 0.3         |
| Q99JP6   | Homer3             | Homer protein homolog 3 (Homer-3)        | 0.0766553  | 0.240338 | 0.31895  | 8 | 0.757934 | 0.428571429 | 0.428571429 |
| Q99JP7   | Ggt7 Ggtl3         | Glutathione hydrolase 7 (EC 3.4.19.13)   | -0.585089  | 0.202772 | -2.88546 | 1 | 0.212384 | 0.7         | 0           |
| Q99JR1   | Sfxn1              | Sideroflexin-1                           | -0.2079453 | 0.251863 | -0.82563 | 8 | 0.432944 | 0.166666667 | 0.166666667 |
| Q99JR8   | Smardc2 Baf60b     | SWI/SNF-related matrix-associated actin  | -0.1865149 | 0.340155 | -0.54832 | 3 | 0.621638 | 0.5         | 0           |
| Q99JT9   | Adi1 Mtcbp1        | Acireductone dioxygenase (Acireductone   | 0.1434023  | 0.283134 | 0.50648  | 8 | 0.626179 | 0.466666667 | 0.466666667 |
| Q99JX3   | Gorasp2            | Golgi reassembly-stacking protein 2 (G   | -0.0031347 | 0.117288 | -0.02673 | 8 | 0.979332 | 0.185714286 | 0.185714286 |
| Q99JX4   | Eif3m Pcid1        | Eukaryotic translation initiation factor | 0.4997565  | 0.519733 | 0.96156  | 8 | 0.364428 | 0.35        | 0.35        |
| Q99JX7   | Nxf1 Tap           | Nuclear RNA export factor 1 (Tip-assoc   | -0.0731    | 0.129046 | -0.56647 | 8 | 0.586613 | 0.414285714 | 0.414285714 |
| Q99JY0   | Hadhb              | Trifunctional enzyme subunit beta, mit   | -0.0157137 | 0.174005 | -0.09031 | 8 | 0.930264 | 0.384210526 | 0.384210526 |
| Q99JY8   | Plpp3 Lpp3 Ppap2b  | Phospholipid phosphatase 3 (EC 3.1.3     | 0.048689   | 0.324051 | 0.15025  | 8 | 0.884286 | 0.45        | 0.45        |
| Q99JY9   | Actr3 Arp3         | Actin-related protein 3 (Actin-like prot | 0.0843392  | 0.103747 | 0.81293  | 8 | 0.43978  | 0.216666667 | 0.216666667 |
| Q99JZ4   | Sar1a Sara1        | GTP-binding protein SAR1a                | 0.2024773  | 0.565632 | 0.35797  | 8 | 0.72963  | 0.2         | 0.2         |
| Q99JZ9   | Srp54c             | Signal recognition particle 54 kDa prot  | 0.2456322  | 0.37365  | 0.65739  | 5 | 0.539985 | 0.3         | 0           |
| Q99K01-2 | Pdxdc1             | Pyridoxal-dependent decarboxylase dc     | 0.0290985  | 0.078163 | 0.37228  | 8 | 0.719352 | 0.414285714 | 0.414285714 |
| Q99K28   | Arfgap2 Zfp289 Znf | ADP-ribosylation factor GTPase-activ     | 0.2441104  | 0.319634 | 0.76372  | 8 | 0.466959 | 0.366666667 | 0.366666667 |
| Q99K41   | Emilin1            | EMILIN-1 (Elastin microfibril interfac   | -0.3951574 | 0.408743 | -0.96676 | 2 | 0.435657 | 0.6         | 0           |
| Q99K43   | Prc1               | Protein regulator of cytokinesis 1       | 0.1166248  | 0.335465 | 0.34765  | 6 | 0.739973 | 0.566666667 | 0.566666667 |
| Q99K46   | Usp11              | Ubiquitin carboxyl-terminal hydrolase    | 0.1755532  | 0.175289 | 1.00151  | 8 | 0.345907 | 0.507142857 | 0.507142857 |
| Q99K48   | Nono               | Non-POU domain-containing octamer-       | 0.1564546  | 0.286278 | 0.54651  | 8 | 0.59962  | 0.271428571 | 0.271428571 |
| Q99K51   | Pls3               | Plastin-3 (T-plastin)                    | -0.0192266 | 0.187852 | -0.10235 | 8 | 0.920998 | 0.5125      | 0.5125      |
| Q99K70   | Rragc              | Ras-related GTP-binding protein C (Ra    | 0.0457756  | 0.428767 | 0.10676  | 8 | 0.917607 | 0.5         | 0.5         |
| Q99K74   | Med24 D11ErtD307   | Mediator of RNA polymerase II transcri   | -0.5595874 | 0.648458 | -0.86295 | 2 | 0.479117 | 0.6         | 0           |
| Q6PGH0   | UbtD2              | Ubiquitin domain-containing protein 2    | -0.4984955 | 0.190968 | -2.61036 | 6 | 0.040101 | 0.5         | 0.3         |
| Q99K95   | Rtf2 RtfDc1        | Replication termination factor 2 (RTF2)  | -0.2202348 | 0.676324 | -0.32564 | 7 | 0.754218 | 0.44        | 0.34        |
| Q99KB8   | Hagh Glo2          | Hydroxyacylglutathione hydrolase, mit    | -0.6397623 | 1.088701 | -0.58764 | 6 | 0.578204 | 0.65        | 0.45        |
| Q99KC8   | Vwa5a Loh11cr2a    | von Willebrand factor A domain-contai    | 0.1149274  | 0.39565  | 0.29048  | 7 | 0.779868 | 0.65        | 0.55        |
| Q99KD5   | Unc45a Smap1       | Protein unc-45 homolog A (Unc-45A)       | -0.1373615 | 0.370315 | -0.37093 | 2 | 0.746294 | 0.6         | 0           |
| Q99KE1   | Me2                | NAD-dependent malic enzyme, mitoch       | 0.1688627  | 0.149437 | 1.12999  | 8 | 0.291218 | 0.166666667 | 0.166666667 |
| Q99KF1   | Tmed9 Gp25l2       | Transmembrane emp24 domain-conta         | -0.1043315 | 0.181181 | -0.57584 | 8 | 0.580556 | 0.357142857 | 0.357142857 |
| Q99KG3-2 | Rbm10 Kiaa0122     | RNA-binding protein 10 (RNA-binding      | 0.1519649  | 0.199574 | 0.76144  | 8 | 0.468241 | 0.407142857 | 0.407142857 |
| Q99KG5   | Lsr lldr3 Lisch7   | Lipolysis-stimulated lipoprotein recept  | 0.778732   | 0.417055 | 1.86722  | 2 | 0.202837 | 0.6         | 0           |
| Q99KH8   | Stk24 Mst3 Stk3    | Serine/threonine-protein kinase 24 (E    | 0.4164263  | 0.394049 | 1.05679  | 8 | 0.321474 | 0.475       | 0.475       |
| Q99KI0   | Aco2               | Aconitate hydratase, mitochondrial (Ac   | 0.1018119  | 0.097485 | 1.04438  | 8 | 0.326837 | 0.198360656 | 0.198360656 |
| Q99KI3   | Emc3 Tmem111       | ER membrane protein complex subuni       | -0.0541726 | 0.314255 | -0.17238 | 8 | 0.867417 | 0.466666667 | 0.466666667 |
| Q99KJ8   | Dctn2              | Dynactin subunit 2 (50 kDa dynein-as     | 0.3400767  | 0.206467 | 1.64713  | 8 | 0.138147 | 0.164285714 | 0.164285714 |
| Q99KK2   | Cmas               | N-acylneuraminase cytidylyltransferase   | 0.033367   | 0.174454 | 0.19127  | 8 | 0.853083 | 0.228571429 | 0.228571429 |

|        |                    |                                          |            |          |          |   |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q99KK7 | Dpp3               | Dipeptidyl peptidase 3 (EC 3.4.14.4) (I  | 0.1074051  | 0.115706 | 0.92826  | 8 | 0.380428 | 0.309756098 | 0.309756098 |
| Q99KK9 | Hars2 Harsl        | Histidine--tRNA ligase, mitochondrial (  | -0.1967314 | 0.14378  | -1.36828 | 8 | 0.208415 | 0.625       | 0.625       |
| Q99KN2 | Ciao1 Wdr39        | Probable cytosolic iron-sulfur protein   | 0.0724712  | 0.174323 | 0.41573  | 8 | 0.688536 | 0.31        | 0.31        |
| Q99KP6 | Prpf19 Prp19 Snev  | Pre-mRNA-processing factor 19 (EC 2.     | -0.0547947 | 0.069412 | -0.78941 | 8 | 0.45263  | 0.181578947 | 0.181578947 |
| Q99KQ4 | Nampt Pbef1        | Nicotinamide phosphoribosyltransferase   | -0.116255  | 0.147616 | -0.78755 | 8 | 0.453658 | 0.316666667 | 0.316666667 |
| Q99KR7 | Ppif               | Peptidyl-prolyl cis-trans isomerase F, n | -0.1670962 | 0.159712 | -1.04623 | 8 | 0.326032 | 0.466666667 | 0.466666667 |
| Q99KU0 | Vmp1               | Vacuole membrane protein 1 (NF-E2-ir     | 0.1486901  | 0.873578 | 0.17021  | 3 | 0.875678 | 0.55        | 0.05        |
| Q99KV1 | Dnajb11            | DnaJ homolog subfamily B member 11       | 0.0289185  | 0.161169 | 0.17943  | 8 | 0.862062 | 0.34        | 0.34        |
| Q9JMG3 | Tmub1 Hops         | Transmembrane and ubiquitin-like don     | -0.5053417 | 0.13384  | -3.77571 | 3 | 0.032539 | 0.65        | 0.15        |
| Q99KW9 | Itfg1 D8Wsu49e Lnk | T-cell immunomodulatory protein (Pro     | 0.2501388  | 0.244248 | 1.02412  | 6 | 0.345283 | 0.533333333 | 0.333333333 |
| Q99KX1 | Mlf2               | Myeloid leukemia factor 2 (Myelodyspla   | 0.3068696  | 0.415951 | 0.73775  | 8 | 0.48174  | 0.45        | 0.45        |
| Q99KY4 | Gak DNAJC26        | Cyclin-G-associated kinase (EC 2.7.11    | -0.5428244 | 0.33028  | -1.64353 | 7 | 0.144274 | 0.583333333 | 0.483333333 |
| Q99L02 | Pagr1a Pa1 Pagr    | PAXIP1-associated glutamate-rich prot    | 0.6087431  | 0.329918 | 1.84514  | 5 | 0.124324 | 0.3         | 0           |
| Q99L04 | Dhrs1 D14ertd484e  | Dehydrogenase/reductase SDR family 1     | -0.0252784 | 0.227875 | -0.11093 | 8 | 0.914404 | 0.393333333 | 0.393333333 |
| Q99L13 | Hibadh             | 3-hydroxyisobutyrate dehydrogenase,      | 0.1404733  | 0.427097 | 0.3289   | 7 | 0.75185  | 0.55        | 0.45        |
| Q99L27 | Gmpr2              | GMP reductase 2 (GMPR 2) (EC 1.7.1.7     | 0.4874782  | 0.302813 | 1.60983  | 8 | 0.146101 | 0.2         | 0.2         |
| Q99L43 | Cds2               | Phosphatidate cytidylyltransferase 2 (E  | 0.2582172  | 0.49307  | 0.52369  | 8 | 0.614686 | 0.375       | 0.375       |
| Q99L45 | Eif2s2             | Eukaryotic translation initiation factor | 0.1203568  | 0.324295 | 0.37113  | 8 | 0.720174 | 0.257142857 | 0.257142857 |
| Q99L47 | St13 Fam10a1 Hip   | Hsc70-interacting protein (Hip) (Prote   | 0.0746996  | 0.095966 | 0.7784   | 8 | 0.458737 | 0.085714286 | 0.085714286 |
| Q99L48 | Nmd3               | 60S ribosomal export protein NMD3        | -0.6187993 | 0.709111 | -0.87264 | 2 | 0.474875 | 0.6         | 0           |
| Q99L61 | Tes                | Testin                                   | 0.0299948  | 0.366852 | 0.08176  | 6 | 0.937495 | 0.65        | 0.45        |
| P63271 | Supt4h1a Spt4h Su  | Transcription elongation factor SPT4-A   | -0.5140532 | 0.160863 | -3.1956  | 3 | 0.049498 | 0.65        | 0.15        |
| Q99LB2 | Dhrs4 D14Ucla2     | Dehydrogenase/reductase SDR family 1     | -0.1071474 | 0.24029  | -0.44591 | 8 | 0.667484 | 0.322222222 | 0.322222222 |
| Q99LB6 | Mat2b              | Methionine adenosyltransferase 2 subu    | 0.1694801  | 0.182025 | 0.93108  | 8 | 0.379053 | 0.34        | 0.34        |
| Q99LC2 | Cstf1              | Cleavage stimulation factor subunit 1 (  | -0.1709942 | 0.142596 | -1.19915 | 8 | 0.264779 | 0.257142857 | 0.257142857 |
| Q99LC3 | Ndufa10            | NADH dehydrogenase [ubiquinone] 1 (e     | 0.0154128  | 0.303134 | 0.05085  | 8 | 0.960696 | 0.392307692 | 0.392307692 |
| Q99LC5 | Etfa               | Electron transfer flavoprotein subunit   | -0.0145368 | 0.055224 | -0.26323 | 8 | 0.799023 | 0.195       | 0.195       |
| Q99LC8 | Eif2b1             | Translation initiation factor eIF2B subu | 0.4832496  | 0.375035 | 1.28854  | 8 | 0.233569 | 0.442857143 | 0.442857143 |
| Q99LD8 | Ddah2              | Putative hydrolase DDAH2 (EC 3.-.-.-)    | 0.2247836  | 0.149171 | 1.50688  | 8 | 0.170266 | 0.219230769 | 0.219230769 |
| Q99LD9 | Eif2b2             | Translation initiation factor eIF2B subu | 0.1235105  | 0.360902 | 0.34223  | 8 | 0.740997 | 0.457142857 | 0.457142857 |
| Q99LE6 | Abcf2              | ATP-binding cassette sub-family F men    | 0.0522756  | 0.217572 | 0.24027  | 8 | 0.816165 | 0.316666667 | 0.316666667 |
| Q99LF4 | Rtcb D10Wsu52e     | RNA-splicing ligase RtcB homolog (EC     | 0.019111   | 0.097087 | 0.19684  | 8 | 0.848858 | 0.248571429 | 0.248571429 |
| Q99LF7 | Dcaf4 Wdr21        | DDB1 and CUL4 associated factor 4 (V     | 0.0206763  | 0.430157 | 0.04807  | 4 | 0.963967 | 0.5         | 0.1         |
| P97494 | Gclc Glclc         | Glutamate--cysteine ligase catalytic su  | -0.5221121 | 0.162681 | -3.20943 | 7 | 0.01487  | 0.52        | 0.42        |
| Q99LG2 | Tnpo2              | Transportin-2 (Karyopherin beta-2b)      | -0.2996955 | 0.394154 | -0.76035 | 8 | 0.468859 | 0.518181818 | 0.518181818 |
| Q99LG4 | Ttc5 Strap         | Tetratricopeptide repeat protein 5 (TPF  | 0.213925   | 0.244437 | 0.87517  | 8 | 0.406986 | 0.369230769 | 0.369230769 |
| Q99LH1 | Gnl2               | Nucleolar GTP-binding protein 2          | 0.1079223  | 0.361617 | 0.29844  | 8 | 0.772969 | 0.525       | 0.525       |
| Q99LI2 | Clcc1              | Chloride channel CLIC-like protein 1     | -0.0392304 | 0.346473 | -0.11323 | 8 | 0.91264  | 0.45        | 0.45        |

|          |                          |                                                                       |            |          |          |   |          |             |             |
|----------|--------------------------|-----------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q99LI5   | Znf281 Zfp281            | Zinc finger protein 281                                               | 0.528101   | 0.24239  | 2.17872  | 8 | 0.060984 | 0.62        | 0.62        |
| Q99LI7   | Cstf3                    | Cleavage stimulation factor subunit 3 (CSTF3)                         | 0.3221871  | 0.357472 | 0.90129  | 8 | 0.393757 | 0.475       | 0.475       |
| Q99LI8   | Hgs Hrs                  | Hepatocyte growth factor-regulated tyrosine kinase (HGFR)             | 0.4153562  | 0.238709 | 1.74001  | 8 | 0.120043 | 0.36        | 0.36        |
| Q99LJ0   | Cttnbp2nl Kiaa1439       | CTTNBP2 N-terminal-like protein                                       | 0.3569403  | 0.230219 | 1.55044  | 8 | 0.159633 | 0.378571429 | 0.378571429 |
| Q99LJ6   | Gpx7                     | Glutathione peroxidase 7 (GPx-7) (GSL)                                | 0.214346   | 0.295467 | 0.72545  | 8 | 0.488853 | 0.325       | 0.325       |
| Q99LJ7   | Rcbtb2 Chc1l             | RCC1 and BTB domain-containing protein 2                              | 0.1104165  | 0.23706  | 0.46577  | 8 | 0.653795 | 0.36        | 0.36        |
| Q99LL5   | Pwp1                     | Periodic tryptophan protein 1 homolog                                 | 0.1647731  | 0.188394 | 0.87462  | 8 | 0.40727  | 0.346153846 | 0.346153846 |
| Q99LM2   | Cdk5rap3                 | CDK5 regulatory subunit-associated protein 3                          | -0.0152945 | 0.269431 | -0.05677 | 8 | 0.956124 | 0.5         | 0.5         |
| Q99LM9   | Tada1 Tada1l             | Transcriptional adapter 1 (Transcriptional adapter 1)                 | 0.0532067  | 0.428891 | 0.12406  | 7 | 0.904758 | 0.4         | 0.3         |
| Q02780-3 | Nfia                     | Nuclear factor 1 A-type (NF1-A) (Nuclear factor 1A)                   | -0.5357713 | 0.231771 | -2.31164 | 8 | 0.049562 | 0.313333333 | 0.313333333 |
| Q99LQ1   | Mbip                     | MAP3K12-binding inhibitory protein 1                                  | -0.3109608 | 0.301577 | -1.03112 | 1 | 0.490248 | 0.7         | 0           |
| Q99LR1   | Abhd12                   | Lysophosphatidylserine lipase ABHD12                                  | -0.2746767 | 0.258602 | -1.06216 | 3 | 0.36609  | 0.7         | 0.2         |
| Q99LS3   | Psph                     | Phosphoserine phosphatase (PSP) (PSP)                                 | -0.1652    | 0.381361 | -0.43319 | 8 | 0.676323 | 0.35        | 0.35        |
| Q99LT0   | Dpy30                    | Protein dpy-30 homolog (Dpy-30-like)                                  | 0.2211667  | 0.296323 | 0.74637  | 8 | 0.476802 | 0.175       | 0.175       |
| Q99LU0   | Chmp1b1 Chmp1b           | Charged multivesicular body protein 1                                 | -0.01813   | 0.9683   | -0.01872 | 3 | 0.986237 | 0.6         | 0.1         |
| Q99LW0   | Ankrd10                  | Ankyrin repeat domain-containing protein 10                           | 0.7622837  | 1.358663 | 0.56105  | 1 | 0.674502 | 0.7         | 0           |
| Q99LW6   | Yaf2                     | YY1-associated factor 2                                               | -0.8375474 | 0.969527 | -0.86387 | 7 | 0.416274 | 0.4         | 0.3         |
| Q99LX0   | Park7                    | Parkinson disease protein 7 homolog (PARK7)                           | 0.2021637  | 0.189608 | 1.06622  | 8 | 0.317442 | 0.296969697 | 0.296969697 |
| Q99LX5   | Mmtag2                   | Multiple myeloma tumor-associated protein 2                           | 0.6780682  | 0.813722 | 0.83329  | 8 | 0.428855 | 0.3         | 0.3         |
| Q99LY9   | Ndufs5                   | NADH dehydrogenase [ubiquinone] iron-sulfur center subunit 5          | -0.0344445 | 0.114257 | -0.30147 | 8 | 0.770747 | 0.3         | 0.3         |
| Q99LZ3   | Gins4 Sld5               | DNA replication complex GINS protein 4                                | -0.2790475 | 0.202499 | -1.37802 | 8 | 0.20551  | 0.24        | 0.24        |
| Q99M28   | Rnps1                    | RNA-binding protein with serine-rich domain 1                         | 0.2450261  | 0.277978 | 0.88146  | 8 | 0.403774 | 0.2         | 0.2         |
| Q99M31   | Hspa14 Hsp70-4           | Heat shock 70 kDa protein 14 (NST-1)                                  | 0.2953521  | 0.281212 | 1.05028  | 8 | 0.324277 | 0.42        | 0.42        |
| Q99M51   | Nck1                     | SH2/SH3 adapter protein Nck1 (Cytoplasmic)                            | -0.4093387 | 0.298472 | -1.37145 | 8 | 0.207467 | 0.5         | 0.5         |
| Q99M54   | Cdca3 C8 Grcc8 Tor1a2ip1 | Cell division cycle-associated protein 3                              | 0.1814526  | 0.310854 | 0.58372  | 7 | 0.577722 | 0.3         | 0.2         |
| Q99M87   | Dnaja3 Tid1              | DnaJ homolog subfamily A member 3, cytoplasmic                        | 0.3347364  | 0.214195 | 1.56277  | 7 | 0.162081 | 0.5         | 0.4         |
| Q99ME2   | Wdr6                     | tRNA (34-2'-O)-methyltransferase regulator 6                          | 0.0437241  | 0.225984 | 0.19348  | 8 | 0.851403 | 0.444444444 | 0.444444444 |
| Q99ME9   | Gtpbp4 Crfg Nog1         | GTP-binding protein 4 (Chronic renal failure)                         | 0.6157093  | 0.473099 | 1.30144  | 8 | 0.229334 | 0.575       | 0.575       |
| Q99MJ9   | Ddx50                    | ATP-dependent RNA helicase DDX50 (DEAD-box protein)                   | 0.3962945  | 0.274067 | 1.44598  | 8 | 0.186196 | 0.35        | 0.35        |
| Q99MK8   | Grk2 Adrbk1              | Beta-adrenergic receptor kinase 1 (Beta-2-adrenergic receptor kinase) | -0.0744872 | 0.192952 | -0.38604 | 6 | 0.712785 | 0.55        | 0.35        |
| Q99MN1   | Kars1 Kars               | Lysine--tRNA ligase (EC 2.7.7.-) (EC 6.1.1.1)                         | 0.0865427  | 0.138126 | 0.62655  | 8 | 0.548412 | 0.306666667 | 0.306666667 |
| Q99MN9   | Pccb                     | Propionyl-CoA carboxylase beta chain, cytoplasmic                     | -0.1392148 | 0.220192 | -0.63224 | 8 | 0.54487  | 0.45        | 0.45        |
| Q99MP8   | Brp                      | BRCA1-associated protein (EC 2.3.2.2)                                 | 0.0443513  | 0.486958 | 0.09108  | 3 | 0.933171 | 0.5         | 0           |
| Q99MR0   | Actl6b Actl6 Arpna f     | Actin-like protein 6B (53 kDa BRG1-associated)                        | -0.0459604 | 0.548228 | -0.08383 | 6 | 0.935915 | 0.633333333 | 0.433333333 |
| Q99MR1   | Gigyf1 Kiaa4110 Per1     | GRB10-interacting GYF protein 1 (PER1)                                | 0.3450327  | 0.250737 | 1.37607  | 7 | 0.211207 | 0.633333333 | 0.533333333 |
| Q99MR6   | Srrt Ars2 Asr2           | Serrate RNA effector molecule homolog                                 | 0.0950096  | 0.140015 | 0.67857  | 8 | 0.516556 | 0.25        | 0.25        |
| Q99MR8   | Mccc1 Mcca               | Methylcrotonoyl-CoA carboxylase subunit 1                             | -0.1274177 | 0.17032  | -0.74811 | 8 | 0.47581  | 0.5         | 0.5         |
| Q99MS8   | Tpgs1 Gm16517 Gt         | Tubulin polyglutamylase complex subunit 1                             | -1.2368289 | 0.814512 | -1.51849 | 3 | 0.226192 | 0.5         | 0           |

|          |                     |                                                          |            |          |          |   |          |             |             |
|----------|---------------------|----------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q99MU3   | Adar                | Double-stranded RNA-specific adenosine deaminase         | -1.016278  | 0.427437 | -2.37761 | 2 | 0.140543 | 0.6         | 0           |
| Q99MY8   | Ash1l               | Histone-lysine N-methyltransferase ASH1L1                | -0.0807594 | 0.349032 | -0.23138 | 5 | 0.826189 | 0.3         | 0           |
| Q99N15   | Hsd17b10 Hadh2      | 17beta-hydroxysteroid dehydrogenase                      | 0.0476025  | 0.131973 | 0.3607   | 8 | 0.727663 | 0.266666667 | 0.266666667 |
| Q99N57   | Raf1 Crafb          | RAF proto-oncogene serine/threonine kinase               | -0.0810264 | 0.403294 | -0.20091 | 8 | 0.845782 | 0.575       | 0.575       |
| Q99N84   | Mrps18b             | Small ribosomal subunit protein mS40                     | 0.3603075  | 0.499419 | 0.72145  | 8 | 0.491175 | 0.275       | 0.275       |
| Q99N85   | Mrps18a             | Large ribosomal subunit protein mL66                     | -0.2972602 | 0.176295 | -1.68615 | 7 | 0.135631 | 0.1         | 0           |
| Q99N87   | Mrps5               | Small ribosomal subunit protein uS5r                     | -0.0771796 | 0.366247 | -0.21073 | 8 | 0.838366 | 0.35        | 0.35        |
| Q99N93   | Mrpl16              | Large ribosomal subunit protein uL16r                    | -0.1275774 | 0.334937 | -0.3809  | 7 | 0.714574 | 0.1         | 0           |
| Q99N95   | Mrpl3               | Large ribosomal subunit protein uL3m                     | -0.0157595 | 0.135349 | -0.11644 | 8 | 0.910177 | 0.514285714 | 0.514285714 |
| Q99N96   | Mrpl1               | Large ribosomal subunit protein uL1m                     | 0.3163474  | 0.436509 | 0.72472  | 8 | 0.489274 | 0.46        | 0.46        |
| Q99NB1   | Acss1 Acas2 Acas2l  | Acetyl-coenzyme A synthetase 2-like, nuclear             | 0.0368883  | 0.207324 | 0.17793  | 8 | 0.863204 | 0.5         | 0.5         |
| Q99NB8   | Ubqln4 Cip75 Ubin   | Ubiquilin-4 (Ataxin-1 interacting ubiquitin ligase)      | 0.0607943  | 0.115479 | 0.52645  | 8 | 0.612854 | 0.315789474 | 0.315789474 |
| Q99NB9   | Sf3b1 Sap155        | Splicing factor 3B subunit 1 (Pre-mRNA splicing)         | -0.2131766 | 0.158386 | -1.34593 | 8 | 0.215219 | 0.319444444 | 0.319444444 |
| Q99NF3   | Cep41 Tsga14        | Centrosomal protein of 41 kDa (Cep41)                    | -0.7194808 | 0.406001 | -1.77211 | 2 | 0.218383 | 0.7         | 0.1         |
| Q99NF7   | Ppm1b ppm1b2        | protein-serine/threonine phosphatase                     | 0.4132274  | 0.272175 | 1.51824  | 8 | 0.167433 | 0.4         | 0.4         |
| Q99NG0   | Rad54l2 Arip4 Srisn | Helicase ARIP4 (EC 3.6.4.12) (Androgen receptor)         | -0.542269  | 0.651599 | -0.83221 | 3 | 0.466342 | 0.5         | 0           |
| Q99NH0   | Ankrd17 Foe Gtar Ki | Ankyrin repeat domain-containing protein                 | 0.0142575  | 0.240141 | 0.05937  | 8 | 0.954113 | 0.536363636 | 0.536363636 |
| Q99NH2   | Pard3 Par3          | Partitioning defective 3 homolog (PAR3)                  | 0.155657   | 0.373953 | 0.41625  | 8 | 0.688172 | 0.5         | 0.5         |
| Q99P31   | Hspbp1 Hspbp        | Hsp70-binding protein 1 (HspBP1) (Heat shock protein)    | 0.0319353  | 0.257219 | 0.12416  | 8 | 0.904255 | 0.42        | 0.42        |
| E9QNN1   | Dhx9                | RNA helicase (EC 3.6.4.13) (DEAH box protein)            | -0.5426933 | 0.224169 | -2.42091 | 8 | 0.041791 | 0.3         | 0.3         |
| Q99P72   | Rtn4 Kiaa0886 Nogrl | Reticulon-4 (Neurite outgrowth inhibitor)                | 0.1400618  | 0.106753 | 1.31202  | 8 | 0.225907 | 0.246296296 | 0.246296296 |
| Q99P88   | Nup155              | Nuclear pore complex protein Nup155                      | -0.1887925 | 0.129479 | -1.4581  | 8 | 0.182924 | 0.388461538 | 0.388461538 |
| Q99PG2   | Ogfr                | Opioid growth factor receptor (OGFr) (G-protein coupled) | 0.2071244  | 0.115973 | 1.78596  | 8 | 0.111927 | 0.304545455 | 0.304545455 |
| Q99PL5-9 | Rrbp1               | Ribosome-binding protein 1 (Ribosome-binding)            | -0.3942182 | 0.365263 | -1.07927 | 5 | 0.329756 | 0.6         | 0.3         |
| Q99PL5   | Rrbp1               | Ribosome-binding protein 1 (Ribosome-binding)            | -0.0232907 | 0.206153 | -0.11298 | 8 | 0.912832 | 0.422580645 | 0.422580645 |
| Q3U955   | Tmpo                | Thymopoietin                                             | -0.5456847 | 0.231949 | -2.3526  | 8 | 0.046492 | 0.2         | 0.2         |
| Q99PM9   | Uck2 Umpk           | Uridine-cytidine kinase 2 (UCK 2) (EC 2.7.1.22)          | 0.2991005  | 0.19272  | 1.55199  | 8 | 0.159265 | 0.542857143 | 0.542857143 |
| Q99PT1   | Arhgdia C87222 Gd   | Rho GDP-dissociation inhibitor 1 (Rho GDI)               | -0.0297717 | 0.048334 | -0.61595 | 8 | 0.555042 | 0.134782609 | 0.134782609 |
| Q99PU7   | Bap1 Kiaa0272       | Ubiquitin carboxyl-terminal hydrolase                    | 0.6751206  | 0.647743 | 1.04227  | 6 | 0.337452 | 0.45        | 0.25        |
| Q99PU8   | Dhx30 Helg          | ATP-dependent RNA helicase DHX30 (DEAH box)              | 0.0283606  | 0.21288  | 0.13322  | 8 | 0.897307 | 0.481818182 | 0.481818182 |
| Q99PV0   | Prpf8 Prp8          | Pre-mRNA-processing-splicing factor 8                    | -0.3053506 | 0.239749 | -1.27362 | 8 | 0.238553 | 0.316071429 | 0.316071429 |
| Q99PV8-2 | Bcl11b Ctip2 Rit1   | B-cell lymphoma/leukemia 11B (BCL-1)                     | 0.1980044  | 0.23759  | 0.83339  | 8 | 0.428804 | 0.377777778 | 0.377777778 |
| Q9BCZ4   | Selenos H47 Vimp    | Selenoprotein S (SeS) (Minor histone H4 variant)         | -0.3355241 | 0.456847 | -0.73443 | 2 | 0.53912  | 0.6         | 0           |
| Q9CPN8   | Igf2bp3 Vickz3      | Insulin-like growth factor 2 mRNA-binding protein 3      | 0.039758   | 0.327737 | 0.12131  | 8 | 0.906437 | 0.189285714 | 0.189285714 |
| Q9CPN9   | Prss3b 2210010C0    | Protease, serine 3B (Trypsinogen 7)                      | -0.600093  | 0.736351 | -0.81496 | 6 | 0.446232 | 0.55        | 0.35        |
| Q9CPP0   | Npm3                | Nucleoplasmin-3                                          | -0.2307757 | 0.185746 | -1.24242 | 8 | 0.249263 | 0.316666667 | 0.316666667 |
| Q9CPP6   | Ndufa5              | NADH dehydrogenase [ubiquinone] 1 alpha subunit          | 0.0034587  | 0.451662 | 0.00766  | 8 | 0.994078 | 0.34        | 0.34        |
| Q9CPQ1   | Cox6c               | Cytochrome c oxidase subunit 6C (Cytochrome c oxidase)   | 0.6066909  | 0.913349 | 0.66425  | 8 | 0.52521  | 0.48        | 0.48        |

|        |                   |                                         |            |          |          |   |          |             |             |
|--------|-------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CPQ3 | Tomm22 Tom22      | Mitochondrial import receptor subunit   | -0.3930117 | 0.565436 | -0.69506 | 8 | 0.5067   | 0.128571429 | 0.128571429 |
| Q9CPQ8 | Atp5mg Atp5l      | ATP synthase subunit g, mitochondrial   | -0.1334261 | 0.385939 | -0.34572 | 8 | 0.73847  | 0.075       | 0.075       |
| Q9CPR1 | Rwdd4 Rwdd4a      | RWD domain-containing protein 4         | -0.2371645 | 0.329339 | -0.72012 | 8 | 0.491951 | 0           | 0           |
| Q9CPR4 | Rpl17             | Large ribosomal subunit protein uL22    | 0.1342168  | 0.207998 | 0.64528  | 8 | 0.536809 | 0.172222222 | 0.172222222 |
| Q9CPR5 | Mrpl15            | Large ribosomal subunit protein uL15r   | -0.189615  | 0.241087 | -0.7865  | 8 | 0.45424  | 0.3         | 0.3         |
| Q9CPR7 | Sike1             | Suppressor of IKBKE 1 (Suppressor of    | 0.5205926  | 0.834766 | 0.62364  | 4 | 0.566665 | 0.5         | 0.1         |
| Q9CPS5 | Psmc8             | 26S proteasome non-ATPase regulator     | -0.0199708 | 0.288325 | -0.06926 | 8 | 0.946479 | 0.28        | 0.28        |
| Q9CPT3 | Nanp Hdhd4        | N-acylneuraminate-9-phosphatase (EC     | 0.4034203  | 0.221684 | 1.8198   | 8 | 0.106284 | 0.38        | 0.38        |
| Q9CPT4 | Mydgf D17Wsu104   | Myeloid-derived growth factor (MYDGF    | -0.1866618 | 0.157302 | -1.18665 | 8 | 0.269407 | 0.033333333 | 0.033333333 |
| Q9CPT5 | Nop16 D13Wsu177   | Nucleolar protein 16                    | 0.5377031  | 0.418287 | 1.28549  | 8 | 0.234583 | 0.285714286 | 0.285714286 |
| Q9CPU0 | Glo1              | Lactoylglutathione lyase (EC 4.4.1.5) ( | 0.2396355  | 0.210618 | 1.13777  | 8 | 0.288141 | 0.294117647 | 0.294117647 |
| Q9CPV3 | Mrpl42 D10Ert4322 | Large ribosomal subunit protein mL42    | 0.2359248  | 0.165332 | 1.42698  | 4 | 0.226752 | 0.4         | 0           |
| Q9CPV4 | Glod4             | Glyoxalase domain-containing protein    | -1.42E-05  | 0.118241 | -0.00012 | 8 | 0.999907 | 0.245454545 | 0.245454545 |
| Q9CPV5 | Pmf1              | Polyamine-modulated factor 1 (PMF-1)    | -0.3068016 | 0.303439 | -1.01108 | 8 | 0.341577 | 0.428571429 | 0.428571429 |
| Q9CPW3 | Mrpl54            | Large ribosomal subunit protein mL54    | 0.2648291  | 0.323593 | 0.8184   | 6 | 0.444407 | 0.4         | 0.2         |
| Q9CPW4 | Arpc5             | Actin-related protein 2/3 complex sub   | -0.0147124 | 0.167116 | -0.08804 | 8 | 0.932011 | 0.26        | 0.26        |
| Q9CPW7 | Zmat2             | Zinc finger matrin-type protein 2       | -0.127571  | 0.314801 | -0.40524 | 8 | 0.695919 | 0.516666667 | 0.516666667 |
| Q9CPX4 | Ftl1 Ftl1-ps1     | Ferritin                                | -0.0073647 | 0.153706 | -0.04791 | 8 | 0.962959 | 0.22        | 0.22        |
| Q9CPX6 | Atg3 Apg3l        | Ubiquitin-like-conjugating enzyme ATC   | 0.52168    | 0.246359 | 2.11756  | 8 | 0.067079 | 0.52        | 0.52        |
| Q9CPX9 | Anapc11           | Anaphase-promoting complex subunit      | -0.1009409 | 0.161337 | -0.62565 | 6 | 0.55458  | 0.45        | 0.25        |
| Q9CPY7 | Lap3 Lapep        | Cytosol aminopeptidase (EC 3.4.11.1)    | 0.0543987  | 0.135281 | 0.40212  | 8 | 0.698129 | 0.251724138 | 0.251724138 |
| Q9CQ02 | Commd4            | COMM domain-containing protein 4        | 0.4608399  | 0.408072 | 1.12931  | 5 | 0.310016 | 0.3         | 0           |
| Q9CQ06 | Mrpl24            | Large ribosomal subunit protein uL24r   | 0.0410128  | 0.24883  | 0.16482  | 5 | 0.87554  | 0.45        | 0.15        |
| Q9CQ13 | Coprs Copr5       | Coordinator of PRMT5 and differentiat   | 0.1993137  | 0.178286 | 1.11795  | 5 | 0.314407 | 0.3         | 0           |
| Q9CQ18 | Rnaseh2c Ayp1     | Ribonuclease H2 subunit C (RNase H2     | -0.326571  | 0.143138 | -2.28152 | 8 | 0.051948 | 0.383333333 | 0.383333333 |
| Q9CQ20 | Mid1ip1 Mig12     | Mid1-interacting protein 1 (Gastrulatio | -0.0534844 | 0.229991 | -0.23255 | 4 | 0.827525 | 0.633333333 | 0.233333333 |
| Q9CQ21 | Mcts2             | Malignant T-cell-amplified sequence 2 ( | 0.565302   | 0.167214 | 3.3807   | 1 | 0.183089 | 0.7         | 0           |
| Q924T2 | Mrps2             | Small ribosomal subunit protein uS2r    | -0.5476828 | 0.174585 | -3.13706 | 8 | 0.013867 | 0.1         | 0.1         |
| Q9CQ25 | Mzt2 Fam128b Moz  | Mitotic-spindle organizing protein 2 (M | -0.3426901 | 0.316783 | -1.08178 | 6 | 0.320899 | 0.5         | 0.3         |
| Q9CQ28 | Dph6 Atpbd4       | Diphthine--ammonia ligase (EC 6.3.1.1   | -0.4000749 | 1.341202 | -0.2983  | 4 | 0.780331 | 0.55        | 0.15        |
| Q9CQ36 | Pole4             | DNA polymerase epsilon subunit 4 (Df    | -0.377544  | 0.526534 | -0.71704 | 8 | 0.493752 | 0.44        | 0.44        |
| Q9CQ37 | Ube2t             | Ubiquitin-conjugating enzyme E2 T (E    | -0.4350436 | 0.361507 | -1.20342 | 5 | 0.28268  | 0.55        | 0.25        |
| Q9CQ39 | Med21 Srb7 Surb7  | Mediator of RNA polymerase II transcrip | -0.1305413 | 0.284727 | -0.45848 | 8 | 0.658807 | 0.5         | 0.5         |
| Q9CQ40 | Mrpl49            | Large ribosomal subunit protein mL49    | 0.1427188  | 0.260076 | 0.54876  | 8 | 0.598149 | 0.35        | 0.35        |
| Q9CQ43 | Dut Dutp          | Deoxyuridine 5'-triphosphate nucleoti   | 0.0046979  | 0.202479 | 0.0232   | 8 | 0.982057 | 0.175       | 0.175       |
| Q9CQ45 | Nenf Spuf         | Neudesin (Neuron-derived neurotroph     | 0.3445741  | 0.344026 | 1.00159  | 7 | 0.349898 | 0.55        | 0.45        |
| Q9CQ48 | Nudcd2 D11Ert460  | NudC domain-containing protein 2        | 0.1080429  | 0.185355 | 0.5829   | 8 | 0.576021 | 0.116666667 | 0.116666667 |
| Q9CQ49 | Ncbp2 Cbp20       | Nuclear cap-binding protein subunit 2   | 0.5096429  | 0.257166 | 1.98176  | 8 | 0.082822 | 0.2         | 0.2         |

|        |                    |                                          |            |          |          |    |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q9CQ54 | Ndufc2             | NADH dehydrogenase [ubiquinone] 1 s      | -0.0919385 | 0.294136 | -0.31257 | 8  | 0.762599 | 0.366666667 | 0.366666667 |
| Q9CQ60 | Pgls               | 6-phosphogluconolactonase (6PGL) (I      | 0.17546    | 0.178553 | 0.98268  | 8  | 0.354547 | 0.19        | 0.19        |
| Q9CQ62 | Decr1              | 2,4-dienoyl-CoA reductase [(3E)-enoyl    | 0.1979601  | 0.231872 | 0.85375  | 8  | 0.418073 | 0.3         | 0.3         |
| Q9CQ65 | Mtap               | S-methyl-5'-thioadenosine phosphory      | -0.0981971 | 0.100679 | -0.97535 | 8  | 0.357952 | 0.27826087  | 0.27826087  |
| Q9CQ69 | Uqcrcq             | Cytochrome b-c1 complex subunit 8 (      | -0.017005  | 0.011583 | -1.46809 | 1  | 0.380677 | 0.7         | 0           |
| Q9CQ71 | Rpa3               | Replication protein A 14 kDa subunit (   | 0.1758301  | 0.241569 | 0.72787  | 8  | 0.487448 | 0.228571429 | 0.228571429 |
| Q9CQ75 | Ndufa2             | NADH dehydrogenase [ubiquinone] 1 s      | 0.0492529  | 0.222797 | 0.22107  | 8  | 0.830579 | 0.05        | 0.05        |
| Q9CQ79 | Txndc9 Apacd       | Thioredoxin domain-containing protein    | -0.1031598 | 0.323563 | -0.31882 | 8  | 0.758025 | 0.271428571 | 0.271428571 |
| Q9CQ80 | Vps25 D11Wsu68e    | Vacuolar protein-sorting-associated pr   | -0.0050474 | 0.943745 | -0.00535 | 8  | 0.995864 | 0.475       | 0.475       |
| Q9CQ86 | Mien1 Rdx12        | Migration and invasion enhancer 1        | 0.3310703  | 0.153399 | 2.15823  | 8  | 0.062963 | 0.2         | 0.2         |
| Q9JIK9 | Mrps34 Tce2        | Small ribosomal subunit protein mS34     | -0.552144  | 0.196416 | -2.81109 | 4  | 0.048263 | 0.5         | 0.1         |
| Q9CQ90 |                    | Uncharacterized protein C9orf85 hom      | -0.0105757 | 0.24885  | -0.0425  | 5  | 0.967746 | 0.3         | 0           |
| Q8BHB4 | Wdr3               | WD repeat-containing protein 3           | -0.5558542 | 0.182388 | -3.04765 | 8  | 0.015878 | 0.52        | 0.52        |
| Q9CQ92 | Fis1 Ttc11         | Mitochondrial fission 1 protein (FIS1 h  | -0.2557925 | 0.784963 | -0.32587 | 8  | 0.752886 | 0.316666667 | 0.316666667 |
| Q9CQA1 | Trappc5            | Trafficking protein particle complex sul | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q9CQA3 | Sdhb               | Succinate dehydrogenase [ubiquinone      | 0.027431   | 0.326252 | 0.08408  | 8  | 0.935059 | 0.31875     | 0.31875     |
| Q9CQA5 | Med4 Vdrip         | Mediator of RNA polymerase II transcrip  | 0.9066527  | 1.302356 | 0.69616  | 4  | 0.524659 | 0.4         | 0           |
| Q9CQB5 | Cisd2 Cdgsh2 Noxp  | CDGSH iron-sulfur domain-containing      | -0.0527694 | 0.166927 | -0.31612 | 8  | 0.76     | 0.32        | 0.32        |
| Q9CQC6 | Bzw1 5mp2          | eIF5-mimic protein 2 (Basic leucine zip  | 0.5612425  | 0.25855  | 2.17073  | 8  | 0.061748 | 0.311111111 | 0.311111111 |
| Q9CQC7 | Ndufb4             | NADH dehydrogenase [ubiquinone] 1 t      | 0.0647904  | 0.298893 | 0.21677  | 8  | 0.833815 | 0.225       | 0.225       |
| Q9CQC9 | Sar1b Sara1b Sara2 | Small COPII coat GTPase SAR1B (EC 3.     | 1.3175508  | 1.022864 | 1.2881   | 8  | 0.233717 | 0.333333333 | 0.333333333 |
| Q9CQD1 | Rab5a nnyRab5a     | Ras-related protein Rab-5A (EC 3.6.5.2   | -0.0114422 | 0.248816 | -0.04599 | 7  | 0.964605 | 0.2         | 0.1         |
| Q9CQE1 | Nipsnap3b Nipsnap  | Protein NipSnap homolog 3B (NipSnap      | -0.0818372 | 0.244608 | -0.33457 | 8  | 0.746556 | 0.566666667 | 0.566666667 |
| Q9CQE3 | Mrps17 Rpms17      | Small ribosomal subunit protein uS17     | -0.1853686 | 0.107502 | -1.72432 | 7  | 0.128307 | 0.4         | 0.3         |
| Q9CQE5 | Rgs10              | Regulator of G-protein signaling 10 (R   | 0.0396422  | 0.332939 | 0.11907  | 2  | 0.916104 | 0.6         | 0           |
| Q9CQE6 | Asf1a              | Histone chaperone ASF1A (Anti-silenci    | -0.1658841 | 0.387381 | -0.42822 | 7  | 0.681358 | 0.475       | 0.375       |
| Q9CQE8 | RTRAF              | RNA transcription, translation and tran  | 0.4383034  | 0.241127 | 1.81773  | 8  | 0.106622 | 0.29047619  | 0.29047619  |
| Q3URQ4 | Fam8a1 C78339      | Family with sequence similarity 8, mem   | -0.5635519 | 0.109638 | -5.1401  | 5  | 0.003645 | 0.3         | 0           |
| Q9CQF3 | Nudt21 Cpsf5       | Cleavage and polyadenylation specifi     | 0.0914988  | 0.12478  | 0.73328  | 8  | 0.484318 | 0.168421053 | 0.168421053 |
| Q9CQF4 | Mtres1             | Mitochondrial transcription rescue fact  | 0.0184405  | 0.23831  | 0.07738  | 2  | 0.945366 | 0.6         | 0           |
| Q9CQG2 | Mettl16 Mett10d    | RNA N6-adenosine-methyltransferase       | -0.2517077 | 0.266766 | -0.94355 | 2  | 0.444997 | 0.6         | 0           |
| Q9CQH3 | Ndufb5             | NADH dehydrogenase [ubiquinone] 1 t      | -0.435791  | 0.258259 | -1.68742 | 6  | 0.142492 | 0.533333333 | 0.333333333 |
| Q9CQH7 | Btf3l4             | Transcription factor BTF3 homolog 4 (I   | 0.0449059  | 0.263083 | 0.17069  | 8  | 0.868704 | 0.2         | 0.2         |
| Q9CQI3 | Gmfb               | Glia maturation factor beta (GMF-beta)   | 0.7187176  | 0.498862 | 1.44072  | 8  | 0.187632 | 0.414285714 | 0.414285714 |
| Q9CQI6 | Cotl1 Clp          | Coactosin-like protein                   | 0.103551   | 0.393186 | 0.26336  | 8  | 0.798926 | 0.209090909 | 0.209090909 |
| Q9CQI7 | Snrpb2             | U2 small nuclear ribonucleoprotein B"    | 0.2633295  | 0.44908  | 0.58638  | 8  | 0.573792 | 0.271428571 | 0.271428571 |
| Q9CQI9 | Med30 Thrap6 Trap2 | Mediator of RNA polymerase II transcrip  | 0.1067087  | 0.180706 | 0.59051  | 5  | 0.580526 | 0.3         | 0           |
| Q9CQJ2 | Pih1d1 Nop17       | PIH1 domain-containing protein 1 (Nu     | 0.1049356  | 0.209037 | 0.502    | 8  | 0.629193 | 0.316666667 | 0.316666667 |

|        |                                                        |                                         |            |          |          |   |          |             |             |
|--------|--------------------------------------------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CQJ4 | Rnf2 DinG Ring1b                                       | E3 ubiquitin-protein ligase RING2 (EC   | 0.0236908  | 0.242543 | 0.09768  | 8 | 0.924592 | 0.384210526 | 0.384210526 |
| Q9CQJ6 | Denr                                                   | Density-regulated protein (DRP)         | 0.2493564  | 0.242422 | 1.0286   | 8 | 0.333759 | 0.2         | 0.2         |
| Q9CQJ8 | Ndufb9                                                 | NADH dehydrogenase [ubiquinone] 1 b     | 0.0202227  | 0.1271   | 0.15911  | 8 | 0.877527 | 0.242857143 | 0.242857143 |
| Q9CQK7 | Rwdd1 Dfrp2                                            | RWD domain-containing protein 1 (DR     | 0.0716203  | 0.302673 | 0.23663  | 8 | 0.818894 | 0.35        | 0.35        |
| Q9CQL1 | Magohb Magoh-rs1                                       | Protein mago nashi homolog 2            | 0.0612132  | 0.188128 | 0.32538  | 8 | 0.75324  | 0.281818182 | 0.281818182 |
| Q9CQL7 | Mrfap1 Pam14 MNC MORF4 family-associated protein 1 (Pr |                                         | 0.1682232  | 0.787145 | 0.21371  | 7 | 0.836862 | 0.5         | 0.4         |
| Q9CQM5 | Txndc17 TxnI5                                          | Thioredoxin domain-containing protein   | -0.3022585 | 0.335966 | -0.89967 | 8 | 0.394569 | 0.416666667 | 0.416666667 |
| Q9CQM9 | Glrx3 Picot TxnI2                                      | Glutaredoxin-3 (PKC-interacting cousi   | 0.2532384  | 0.276262 | 0.91666  | 8 | 0.38612  | 0.365384615 | 0.365384615 |
| Q9CQN1 | Trap1 Hsp75 Hspc5                                      | Heat shock protein 75 kDa, mitochondonc | 0.1642012  | 0.314469 | 0.52215  | 8 | 0.615709 | 0.364       | 0.364       |
| Q9CQN3 | Tomm6 Obtp Tom6                                        | Mitochondrial import receptor subunit   | -0.0194743 | 0.369703 | -0.05268 | 3 | 0.961302 | 0.5         | 0           |
| Q80TR8 | Dcaf1 Kiaa0800 Vpr                                     | DDB1- and CUL4-associated factor 1 (    | -0.5654457 | 0.199299 | -2.83718 | 5 | 0.036367 | 0.45        | 0.15        |
| Q9CQQ4 | Gemin2 Sip1                                            | Gem-associated protein 2 (Gemin-2) (    | -0.0592436 | 0.350235 | -0.16915 | 1 | 0.893323 | 0.7         | 0           |
| Q9CQQ7 | Atp5pb Atp5f1                                          | ATP synthase F(0) complex subunit B1    | 0.1800845  | 0.364851 | 0.49358  | 8 | 0.634864 | 0.318181818 | 0.318181818 |
| Q9CQQ8 | Lsm7                                                   | U6 snRNA-associated Sm-like protein I   | 0.2159498  | 0.327385 | 0.65962  | 8 | 0.528026 | 0.2125      | 0.2125      |
| Q9CQR2 | Rps21                                                  | Small ribosomal subunit protein eS21    | 0.1588223  | 0.233239 | 0.68094  | 8 | 0.51513  | 0.227272727 | 0.227272727 |
| Q9CQR6 | Ppp6c                                                  | Serine/threonine-protein phosphatase    | -0.2178509 | 0.129736 | -1.67918 | 8 | 0.131631 | 0.16        | 0.16        |
| Q9CQS2 | Nop10 Nola3                                            | H/ACA ribonucleoprotein complex sub     | 0.316341   | 0.410662 | 0.77032  | 8 | 0.463249 | 0.15        | 0.15        |
| Q9CQS8 | Sec61b                                                 | Protein transport protein Sec61 subur   | 0.516159   | 0.616175 | 0.83768  | 7 | 0.429879 | 0.3         | 0.2         |
| Q9CQS9 | Haus2 Cep27                                            | HAUS augmin-like complex subunit 2 (    | 0.0171601  | 0.105081 | 0.1633   | 7 | 0.874895 | 0.45        | 0.35        |
| Q9CQT1 | Mri1                                                   | Methylthioribose-1-phosphate isomer     | -0.1392427 | 0.225458 | -0.6176  | 8 | 0.554009 | 0.366666667 | 0.366666667 |
| Q9CQT2 | Rbm7                                                   | RNA-binding protein 7 (RNA-binding n    | -0.3195963 | 0.424945 | -0.75209 | 8 | 0.473542 | 0.457142857 | 0.457142857 |
| Q9Z2A0 | Pdpk1 Pdk1                                             | 3-phosphoinositide-dependent protei     | -0.568951  | 0.23694  | -2.40125 | 7 | 0.047379 | 0.566666667 | 0.466666667 |
| Q9CQT7 | Desi1 D15Wsu75e f                                      | Desumoylating isopeptidase 1 (DeSI-1    | 1.2212088  | 0.527727 | 2.31409  | 5 | 0.068557 | 0.3         | 0           |
| Q9CQU0 | Txndc12 Tlp19                                          | Thioredoxin domain-containing protein   | 0.1198149  | 0.129181 | 0.9275   | 8 | 0.3808   | 0.288888889 | 0.288888889 |
| Q9CQU3 | Rer1                                                   | Protein RER1                            | -0.2815295 | 0.259609 | -1.08444 | 7 | 0.314102 | 0.333333333 | 0.233333333 |
| Q9CQU5 | Zwint D10ErtD749e                                      | ZW10 interactor (ZW10-interacting pro   | 0.0810833  | 0.419759 | 0.19317  | 8 | 0.851643 | 0.3125      | 0.3125      |
| Q9CQV1 | Pam16 Magmas Tim                                       | Mitochondrial import inner membrane     | 0.6477172  | 0.74691  | 0.8672   | 8 | 0.41109  | 0           | 0           |
| Q9CQV4 | Retreg3 Fam134c                                        | Reticulophagy regulator 3               | 0.4399238  | 0.519008 | 0.84763  | 7 | 0.424677 | 0.35        | 0.25        |
| Q9CQV6 | Map1lc3b Map1alc3                                      | Microtubule-associated proteins 1A/1f   | 0.4636301  | 0.378039 | 1.22641  | 8 | 0.254915 | 0           | 0           |
| Q9CQV8 | Ywhab                                                  | 14-3-3 protein beta/alpha (Protein kin  | 0.8041844  | 0.395392 | 2.03389  | 8 | 0.076395 | 0.129411765 | 0.129411765 |
| Q9CQW1 | Ykt6                                                   | Synaptobrevin homolog YKT6 (EC 2.3.     | -0.138828  | 0.248943 | -0.55767 | 8 | 0.592327 | 0.38        | 0.38        |
| Q9CQX2 | Cyb5b Cyb5m                                            | Cytochrome b5 type B (Cytochrome b      | -0.0108324 | 0.160429 | -0.06752 | 8 | 0.947824 | 0.181818182 | 0.181818182 |
| Q9CQX4 | Pclaf Ns5atp9 Paf                                      | PCNA-associated factor (HCV NS5A-tr     | 0.4446825  | 0.474581 | 0.937    | 8 | 0.376179 | 0.3         | 0.3         |
| Q9CQX8 | Kgd4 Mrps36                                            | Alpha-ketoglutarate dehydrogenase co    | 0.0748061  | 0.187169 | 0.39967  | 8 | 0.699856 | 0.283333333 | 0.283333333 |
| Q9CQY2 | Ramac Fam103a1 R                                       | RNA guanine-N7 methyltransferase act    | -0.2210701 | 0.328702 | -0.67255 | 8 | 0.52018  | 0.325       | 0.325       |
| Q9CQZ1 | Hsbp1                                                  | Heat shock factor-binding protein 1     | 0.1132335  | 0.396472 | 0.2856   | 2 | 0.802045 | 0.7         | 0.1         |
| Q9CQZ5 | Ndufa6                                                 | NADH dehydrogenase [ubiquinone] 1 e     | 0.6136914  | 0.297286 | 2.06431  | 8 | 0.07287  | 0.32        | 0.32        |
| Q9CR00 | Psmd9                                                  | 26S proteasome non-ATPase regulator     | 0.3170153  | 0.205801 | 1.5404   | 8 | 0.16203  | 0.353846154 | 0.353846154 |

|        |                   |                                          |            |          |          |   |          |             |             |
|--------|-------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CR02 | Tma16             | Translation machinery-associated prot    | 0.4028906  | 0.171815 | 2.3449   | 5 | 0.065977 | 0.6         | 0.3         |
| Q9CR09 | Ufc1              | Ubiquitin-fold modifier-conjugating en   | -0.0491999 | 0.200295 | -0.24564 | 8 | 0.812147 | 0.485714286 | 0.485714286 |
| Q9CR11 | Yeats4 Gas41      | YEATS domain-containing protein 4 (G     | 0.4007483  | 0.427905 | 0.93654  | 6 | 0.385144 | 0.5         | 0.3         |
| Q9CR16 | Ppid              | Peptidyl-prolyl cis-trans isomerase D (I | 0.0785347  | 0.164751 | 0.47669  | 8 | 0.646333 | 0.242105263 | 0.242105263 |
| Q9CR20 | Ier3ip1           | Immediate early response 3-interacting   | -0.1678076 | 0.380576 | -0.44093 | 2 | 0.702347 | 0.6         | 0           |
| Q9CR21 | Ndufab1           | Acyl carrier protein, mitochondrial (AC  | 0.4271658  | 0.671008 | 0.6366   | 5 | 0.552382 | 0.4         | 0.1         |
| Q9CR23 | Tmem9             | Proton-transporting V-type ATPase coi    | -0.4798729 | 0.328038 | -1.46286 | 5 | 0.20337  | 0.5         | 0.2         |
| Q9CR25 | Dph2 Dph2l2       | 2-(3-amino-3-carboxypropyl)histidine     | 0.10768    | 1.067857 | 0.10084  | 4 | 0.924532 | 0.4         | 0           |
| Q9CR26 | Vta1              | Vacuolar protein sorting-associated pr   | 0.2496725  | 0.166293 | 1.5014   | 8 | 0.171649 | 0.333333333 | 0.333333333 |
| Q9CR29 | Ccdc43 D11Ert70   | Coiled-coil domain-containing protein    | 0.0391644  | 0.155556 | 0.25177  | 8 | 0.807566 | 0.35        | 0.35        |
| Q9CR41 | Hypk              | Huntingtin-interacting protein K (Hunt   | 0.2280207  | 0.239606 | 0.95165  | 8 | 0.369138 | 0.366666667 | 0.366666667 |
| Q9CR47 | Nsa2 Tinp1        | Ribosome biogenesis protein NSA2 ho      | 0.1582693  | 0.160562 | 0.98572  | 8 | 0.353139 | 0.3         | 0.3         |
| Q9CR49 | Hbb-y Glnb1       | Globin b1 (Hemoglobin Y, beta-like em    | 0.1215088  | 0.293014 | 0.41469  | 8 | 0.689269 | 0           | 0           |
| Q9CR50 | Rchy1 Arnip Chimp | RING finger and CHY zinc finger domai    | 0.6391436  | 0.877576 | 0.72831  | 8 | 0.487194 | 0.125       | 0.125       |
| Q9CR51 | Atp6v1g1 Atp6g1   | V-type proton ATPase subunit G 1 (V-/    | 0.6942884  | 0.426101 | 1.6294   | 8 | 0.141877 | 0.2625      | 0.2625      |
| Q9CR57 | Rpl14             | Large ribosomal subunit protein eL14 (   | 0.1200432  | 0.598937 | 0.20043  | 8 | 0.846148 | 0.177777778 | 0.177777778 |
| Q9CR60 | Golt1b            | Vesicle transport protein GOT1B (Golgi   | 0.5295504  | 0.357385 | 1.48174  | 8 | 0.17669  | 0           | 0           |
| Q9CR61 | Ndufb7            | NADH dehydrogenase [ubiquinone] 1 b      | 0.1652323  | 0.183539 | 0.90026  | 8 | 0.394275 | 0.4125      | 0.4125      |
| Q9CR62 | Slc25a11          | Mitochondrial 2-oxoglutarate/malate c    | 0.2608092  | 0.191094 | 1.36482  | 8 | 0.209457 | 0.366666667 | 0.366666667 |
| Q9CR67 | Tmem33 Db83       | Transmembrane protein 33 (Protein DI     | -0.2677519 | 0.356742 | -0.75055 | 6 | 0.481311 | 0.5         | 0.3         |
| Q9CR68 | Uqcrcf1           | Cytochrome b-c1 complex subunit Rie      | 0.1445371  | 0.220656 | 0.65503  | 8 | 0.530825 | 0.314285714 | 0.314285714 |
| Q9CR70 | Lage3 Itba2       | EKC/KEOPS complex subunit Lage3 (P       | 0.2561974  | 0.444747 | 0.57605  | 8 | 0.58042  | 0.28        | 0.28        |
| Q9CR80 | Fam32a Otag12 MN  | Protein FAM32A (Ovarian tumor associ     | -0.3135784 | 0.472233 | -0.66403 | 7 | 0.527928 | 0.1         | 0           |
| Q9CR86 | Carhsp1           | Calcium-regulated heat stable protein    | 0.3819009  | 0.248204 | 1.53866  | 8 | 0.162448 | 0.066666667 | 0.066666667 |
| Q9CR95 | Necap1            | Adaptin ear-binding coat-associated pr   | 0.0987445  | 0.279093 | 0.35381  | 8 | 0.732628 | 0.233333333 | 0.233333333 |
| Q9CR98 | Fam136a           | Protein FAM136A                          | 0.4137689  | 0.27832  | 1.48666  | 8 | 0.175414 | 0.342857143 | 0.342857143 |
| Q9CRA4 | Msmo1 Sc4mol      | Methylsterol monooxygenase 1 (EC 1.1     | 0.0477564  | 0.497916 | 0.09591  | 8 | 0.925949 | 0.46        | 0.46        |
| Q5U5Q9 | Uimc1 Rap80 Rip11 | BRCA1-A complex subunit RAP80 (Rec       | -0.5864351 | 0.193985 | -3.0231  | 5 | 0.029312 | 0.3         | 0           |
| Q9CRA8 | Exosc5 D7Wsu180   | Exosome complex component RRP46          | -0.7291487 | 0.36936  | -1.97408 | 8 | 0.083812 | 0.42        | 0.42        |
| Q9CRB2 | Nhp2 Nola2        | H/ACA ribonucleoprotein complex sub      | 0.2289192  | 0.200894 | 1.1395   | 8 | 0.28746  | 0.2625      | 0.2625      |
| Q9CRB9 | Chchd3 Mic19      | MICOS complex subunit Mic19 (Coiled      | 0.0099965  | 0.261658 | 0.0382   | 8 | 0.970461 | 0.44        | 0.44        |
| Q9CRC8 | Lrrc40            | Leucine-rich repeat-containing protein   | 0.1584516  | 0.097772 | 1.62062  | 8 | 0.143757 | 0.33        | 0.33        |
| Q9CRD0 | Ociad1 Asrij      | OCIA domain-containing protein 1         | 0.1232159  | 0.285678 | 0.43131  | 8 | 0.67763  | 0.6         | 0.6         |
| Q9CRD2 | Emc2 Kiaa0103 Ttc | ER membrane protein complex subuni       | 0.0659276  | 0.373585 | 0.17647  | 8 | 0.864308 | 0.5         | 0.5         |
| Q9CRY7 | Gdpd1 Gde4        | Lysophospholipase D GDPD1 (EC 3.1.       | 0.3052269  | 0.26046  | 1.17188  | 8 | 0.274962 | 0.26        | 0.26        |
| Q9CS38 | Yae1d1 1600012F0  | Essential protein Yae1 N-terminal dom    | 1.3504608  | 1.507519 | 0.89582  | 1 | 0.53495  | 0.7         | 0           |
| Q9CS68 | Nme4              | Nucleoside diphosphate kinase (EC 2.     | 0.1041249  | 0.327829 | 0.31762  | 8 | 0.758905 | 0.283333333 | 0.283333333 |
| Q9CS72 | Filip1            | Filamin-A-interacting protein 1 (FILIP)  | 0.150227   | 0.180365 | 0.83291  | 3 | 0.466005 | 0.6         | 0.1         |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CS74   | Ecd                | Protein ecdysoneless homolog             | -0.1543407 | 0.13832  | -1.11582 | 1 | 0.465185 | 0.7         | 0           |
| Q9CSH3   | Dis3 Kiaa1008 Rrp4 | Exosome complex exonuclease RRP44        | 0.0204229  | 0.17411  | 0.1173   | 8 | 0.909515 | 0.466666667 | 0.466666667 |
| Q9CSU0   | Rprd1b Crept       | Regulation of nuclear pre-mRNA doma      | 0.1323002  | 0.233186 | 0.56736  | 8 | 0.586035 | 0.276923077 | 0.276923077 |
| Q9CT10   | Ranbp3             | Ran-binding protein 3 (RanBP3)           | -0.0068122 | 0.092758 | -0.07344 | 8 | 0.943259 | 0.225       | 0.225       |
| Q9CU62   | Smc1a Sb1.8 Smc1   | Structural maintenance of chromosorr     | 0.0329367  | 0.18868  | 0.17456  | 8 | 0.865759 | 0.358181818 | 0.358181818 |
| Q9CU65   | Zmym2 Zfp198 Znfi  | Zinc finger MYM-type protein 2 (Zinc fin | 0.0591052  | 0.172974 | 0.3417   | 8 | 0.74138  | 0.442857143 | 0.442857143 |
| Q9CVB6   | Arpc2              | Actin-related protein 2/3 complex sub    | -0.0233342 | 0.168474 | -0.1385  | 8 | 0.893265 | 0.195454545 | 0.195454545 |
| Q9CW03   | Smc3 Bam Bmh Csp   | Structural maintenance of chromosorr     | 0.0333529  | 0.13073  | 0.25513  | 8 | 0.805061 | 0.365384615 | 0.365384615 |
| Q9CW46   | Raver1 Kiaa1978    | Ribonucleoprotein PTB-binding 1 (Pro     | 0.0178165  | 0.261315 | 0.06818  | 8 | 0.947315 | 0.334146341 | 0.334146341 |
| Q9CQ91   | Ndufa3             | NADH dehydrogenase [ubiquinone] 1 e      | -0.5949217 | 0.238778 | -2.49152 | 6 | 0.047065 | 0.4         | 0.2         |
| Q9CWE0   | Mtfr1l Fam54b      | Mitochondrial fission regulator 1-like   | 0.3193167  | 0.532211 | 0.59998  | 8 | 0.565122 | 0.525       | 0.525       |
| Q9CWF2   | Tubb2b             | Tubulin beta-2B chain                    | -0.0815991 | 0.300807 | -0.27127 | 8 | 0.793053 | 0.4         | 0.4         |
| Q9CWI3   | Bccip              | BRCA2 and CDKN1A-interacting prote       | 0.1055947  | 0.215555 | 0.48987  | 8 | 0.637373 | 0.133333333 | 0.133333333 |
| Q9CWJ9   | Atic Purh          | Bifunctional purine biosynthesis prote   | 0.1051135  | 0.119521 | 0.87945  | 8 | 0.404797 | 0.304545455 | 0.304545455 |
| Q9CWK3   | Cd2bp2             | CD2 antigen cytoplasmic tail-binding p   | 0.2716955  | 0.384385 | 0.70683  | 8 | 0.499738 | 0.366666667 | 0.366666667 |
| Q9CWK8   | Snx2               | Sorting nexin-2                          | -0.1003521 | 0.099836 | -1.00517 | 8 | 0.344248 | 0.29        | 0.29        |
| Q9CWL8   | Ctnnbl1            | Beta-catenin-like protein 1 (Nuclear-as  | 0.3613674  | 0.246323 | 1.46705  | 8 | 0.180541 | 0.417391304 | 0.417391304 |
| Q9CWM4   | Pfdn1              | Prefoldin subunit 1                      | 0.1349766  | 0.766483 | 0.1761   | 8 | 0.864593 | 0.416666667 | 0.416666667 |
| Q9CWN7   | Cnot11 D1Bwg021    | CCR4-NOT transcription complex sub       | 0.2151972  | 0.36527  | 0.58915  | 8 | 0.57202  | 0.35        | 0.35        |
| Q9CWQ0   | Dph5               | Diphthine methyl ester synthase (EC 2    | 2.0699227  | 0.352341 | 5.87478  | 1 | 0.107336 | 0.7         | 0           |
| Q9CWR1   | Wdr73              | WD repeat-containing protein 73          | 0.36513    | 0.280167 | 1.30326  | 7 | 0.233713 | 0.5         | 0.4         |
| Q9CWS0   | Ddah1              | N(G),N(G)-dimethylarginine dimethylai    | 0.4048395  | 0.333013 | 1.21569  | 8 | 0.258758 | 0.33        | 0.33        |
| Q9CWS4   | Ints11 Cpsf3l      | Integrator complex subunit 11 (Int11)    | -0.2094986 | 0.434308 | -0.48237 | 4 | 0.654749 | 0.6         | 0.2         |
| Q9CWU6   | Uqcc1 Bfzb Uqcc    | Ubiquinol-cytochrome c reductase cor     | 0.1527515  | 0.543967 | 0.28081  | 4 | 0.792782 | 0.6         | 0.2         |
| Q9CWU9   | Nup37              | Nucleoporin Nup37 (Nup107-160 sub        | 0.1585971  | 0.199722 | 0.79409  | 8 | 0.450055 | 0.381818182 | 0.381818182 |
| Q9CWW6   | Pin4               | Peptidyl-prolyl cis-trans isomerase NIP  | 0.1693284  | 0.133777 | 1.26575  | 8 | 0.241219 | 0.271428571 | 0.271428571 |
| Q9CWW7   | Cxxc1 Cgpb Pccx1   | CXXC-type zinc finger protein 1 (CpG-    | -0.2123006 | 0.319382 | -0.66472 | 8 | 0.524922 | 0.38        | 0.38        |
| Q9CWX9   | Ddx47              | Probable ATP-dependent RNA helicase      | 0.0850284  | 0.297832 | 0.28549  | 8 | 0.78252  | 0.3         | 0.3         |
| Q80W47   | Wipi2              | WD repeat domain phosphoinositide-i      | -0.5958918 | 0.219575 | -2.71384 | 6 | 0.034928 | 0.2         | 0           |
| Q9CWX8   | Rnaseh2a Rnasehi   | Ribonuclease H2 subunit A (RNase H2      | 0.0649949  | 0.183696 | 0.35382  | 8 | 0.73262  | 0.3         | 0.3         |
| Q9CWZ3-2 | Rbm8a Rbm8         | RNA-binding protein 8A (RNA-binding      | -0.4058369 | 0.666553 | -0.60886 | 3 | 0.585626 | 0.5         | 0           |
| Q9CWZ7   | Napg Snapg         | Gamma-soluble NSF attachment prote       | 0.2123973  | 0.437282 | 0.48572  | 8 | 0.640188 | 0.5         | 0.5         |
| Q9CX00   | Ist1 Kiaa0174      | IST1 homolog (Charged multivesicular     | 0.2543331  | 0.306905 | 0.8287   | 8 | 0.4313   | 0.428571429 | 0.428571429 |
| Q9CX22   | Cfl1               | Cofilin-1 (Cofilin, non-muscle isoform   | 0.8509173  | 0.490433 | 1.73503  | 3 | 0.181143 | 0.5         | 0           |
| Q9CX30   | Yif1b              | Protein YIF1B (YIP1-interacting factor h | 0.0381772  | 0.300353 | 0.12711  | 8 | 0.901992 | 0.44        | 0.44        |
| Q9CX34   | Sugt1              | Protein SGT1 homolog (Suppressor of      | 0.1150777  | 0.103421 | 1.11271  | 8 | 0.298149 | 0.267741935 | 0.267741935 |
| Q9CX53   | Gemin6             | Gem-associated protein 6 (Gemin-6)       | -0.1432236 | 0.154626 | -0.92626 | 1 | 0.52436  | 0.7         | 0           |
| Q9CX60   | Lbh                | Protein LBH (Limb bud and heart-expre    | 0.0821251  | 0.383619 | 0.21408  | 8 | 0.83584  | 0.4         | 0.4         |

|          |                  |                                          |            |          |          |   |          |             |             |
|----------|------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CX86   | Hnrnpa0 Hnrpa0   | Heterogeneous nuclear ribonucleoprotein  | -0.0533441 | 0.201827 | -0.26431 | 8 | 0.798226 | 0.272727273 | 0.272727273 |
| Q9CXE2   | Bcl7a            | B-cell CLL/lymphoma 7 protein family 1   | -0.3739256 | 0.371306 | -1.00706 | 8 | 0.343393 | 0.5         | 0.5         |
| Q9CXF4   | Tbc1d15          | TBC1 domain family member 15 (GTPa       | -0.0819858 | 0.312316 | -0.26251 | 8 | 0.799563 | 0.466666667 | 0.466666667 |
| Q9CXG3   | Ppil4            | Peptidyl-prolyl cis-trans isomerase-like | 0.222867   | 0.250297 | 0.89041  | 8 | 0.399231 | 0.385714286 | 0.385714286 |
| Q9CXI5   | Manf Armet       | Mesencephalic astrocyte-derived neuro    | 0.3596924  | 0.321464 | 1.11892  | 8 | 0.295643 | 0.258333333 | 0.258333333 |
| Q9C XK8  | Nip7             | 60S ribosome subunit biogenesis prot     | 0.4453006  | 0.430047 | 1.03547  | 7 | 0.334891 | 0.48        | 0.38        |
| Q9C XK9  | Rbm33 Prr8       | RNA-binding protein 33 (Proline-rich p   | -0.281053  | 0.290651 | -0.96698 | 3 | 0.404884 | 0.533333333 | 0.033333333 |
| Q9CXL3   |                  | Uncharacterized protein C7orf50 hom      | 0.1115231  | 0.207816 | 0.53664  | 8 | 0.606111 | 0.333333333 | 0.333333333 |
| Q9CXL6   | Dcx              | Doublecortin                             | 0.4125465  | 0.225588 | 1.82876  | 3 | 0.164873 | 0.5         | 0           |
| Q9CXS4   | Cenpv Prr6       | Centromere protein V (CENP-V) (Prol      | 0.2169678  | 0.253383 | 0.85628  | 8 | 0.41675  | 0.206666667 | 0.206666667 |
| Q9CXU0   | Med10 D13Wsu50e  | Mediator of RNA polymerase II transcri   | 0.2961215  | 0.249908 | 1.18492  | 7 | 0.274712 | 0.5         | 0.4         |
| Q9CXU1   | Med31 Soh1       | Mediator of RNA polymerase II transcri   | -0.1978286 | 0.359977 | -0.54956 | 4 | 0.611862 | 0.5         | 0.1         |
| Q9CXU9   | Eif1b            | Eukaryotic translation initiation factor | 0.8116834  | 0.628983 | 1.29047  | 8 | 0.232933 | 0.2         | 0.2         |
| Q9CXV9   | Dcun1d5 SCCRO5   | DCN1-like protein 5 (DCNL5) (DCUN1       | 0.2840226  | 0.18908  | 1.50213  | 3 | 0.230074 | 0.55        | 0.05        |
| Q9CXW2   | Mrps22 Rpms22    | Small ribosomal subunit protein mS22     | -0.1371037 | 0.21153  | -0.64815 | 8 | 0.535043 | 0.390909091 | 0.390909091 |
| Q9CXW3   | Cacybp Sip       | Calcyclin-binding protein (CacyBP) (Si   | 0.0938809  | 0.144427 | 0.65002  | 8 | 0.533893 | 0.209677419 | 0.209677419 |
| Q9CXW4   | Rpl11            | Large ribosomal subunit protein uL5 (E   | -0.2394995 | 0.173106 | -1.38354 | 8 | 0.203877 | 0.290909091 | 0.290909091 |
| Q9CXX9   | Cuedc2           | CUE domain-containing protein 2          | 0.0896755  | 0.143289 | 0.62584  | 8 | 0.548856 | 0.166666667 | 0.166666667 |
| Q9CXY6   | Ilf2 Nf45        | Interleukin enhancer-binding factor 2 (  | -0.1147039 | 0.131708 | -0.8709  | 8 | 0.409182 | 0.172       | 0.172       |
| Q9CXZ1   | Ndufs4           | NADH dehydrogenase [ubiquinone] iron     | -0.009872  | 0.155588 | -0.06345 | 8 | 0.950965 | 0.45        | 0.45        |
| Q9CY16   | Mrps28           | Small ribosomal subunit protein bS1r     | 0.0068119  | 0.416901 | 0.01634  | 8 | 0.987364 | 0.566666667 | 0.566666667 |
| Q9CY21   | Bud23 Wbscr22    | Probable 18S rRNA (guanine-N(7))-me      | 0.4165557  | 0.621062 | 0.67071  | 8 | 0.521291 | 0.225       | 0.225       |
| Q9CY25   | Mis12            | Protein MIS12 homolog                    | 0.7796347  | 0.708216 | 1.10084  | 1 | 0.469465 | 0.7         | 0           |
| Q9CY27   | Tecr Gpsn2       | Very-long-chain enoyl-CoA reductase (    | 0.3441754  | 0.42744  | 0.8052   | 8 | 0.443974 | 0.323076923 | 0.323076923 |
| Q9CY34   | Ube2f Ube2fa     | NEDD8-conjugating enzyme UBE2F (E        | -0.2488619 | 0.403314 | -0.61704 | 8 | 0.554357 | 0.566666667 | 0.566666667 |
| Q9CY50   | Ssr1             | Translocon-associated protein subunit    | 0.0512388  | 0.322467 | 0.1589   | 8 | 0.877689 | 0.225       | 0.225       |
| Q9CY57   | Chtop Fop MNCb-1 | Chromatin target of PRMT1 protein (Fr    | 0.3796041  | 0.330401 | 1.14892  | 8 | 0.283778 | 0.2125      | 0.2125      |
| Q9CY58-2 | Serbp1 Pairbp1   | SERPINE1 mRNA-binding protein 1 (P       | -0.1295323 | 0.389221 | -0.3328  | 8 | 0.74784  | 0.1         | 0.1         |
| Q9CY58   | Serbp1 Pairbp1   | SERPINE1 mRNA-binding protein 1 (P       | -0.1363404 | 0.178534 | -0.76367 | 8 | 0.466988 | 0.14        | 0.14        |
| Q9CY62   | Rnf181           | E3 ubiquitin-protein ligase RNF181 (E    | -0.0092343 | 0.284707 | -0.03243 | 6 | 0.975178 | 0.433333333 | 0.233333333 |
| Q9CY64   | Blvra            | Biliverdin reductase A (BVR A) (EC 1.3.  | -0.4098915 | 0.266881 | -1.53586 | 6 | 0.175479 | 0.6         | 0.4         |
| Q9CY66   | Gar1 Nola1       | H/ACA ribonucleoprotein complex sub      | -0.2029313 | 0.226851 | -0.89456 | 8 | 0.397139 | 0.2         | 0.2         |
| Q9CY73   | Mrpl44           | Large ribosomal subunit protein mL44     | -0.2517727 | 0.589778 | -0.42689 | 7 | 0.682279 | 0.45        | 0.35        |
| Q9CY94   | Gins3 Psf3       | DNA replication complex GINS protein     | -0.3251203 | 0.536379 | -0.60614 | 7 | 0.563554 | 0.45        | 0.35        |
| Q9CY97   | Ssu72            | RNA polymerase II subunit A C-termin     | 0.3957072  | 0.448409 | 0.88247  | 8 | 0.403259 | 0.471428571 | 0.471428571 |
| Q9CYA0   | Creld2           | Protein disulfide isomerase Creld2 (EC   | 0.0230366  | 0.245275 | 0.09392  | 7 | 0.927803 | 0.425       | 0.325       |
| Q9CYA6   | Zcchc8           | Zinc finger CCHC domain-containing p     | 0.0487458  | 0.155831 | 0.31281  | 8 | 0.762422 | 0.464705882 | 0.464705882 |
| Q9CYC5   | Dsn1             | Kinetochores-associated protein DSN1     | -0.4944902 | 0.299729 | -1.64979 | 8 | 0.137594 | 0.366666667 | 0.366666667 |

|          |                   |                                         |            |          |          |   |          |             |             |
|----------|-------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CYD3   | Crtap Casp        | Cartilage-associated protein            | -1.48792   | 0.513142 | -2.89963 | 1 | 0.211421 | 0.7         | 0           |
| Q9CYG7   | Tomm34            | Mitochondrial import receptor subunit   | 0.0641243  | 0.351045 | 0.18267  | 8 | 0.859604 | 0.326666667 | 0.326666667 |
| Q9CYH6   | Rrs1 Rrr MNCb-264 | Ribosome biogenesis regulatory protei   | 0.1239271  | 0.338837 | 0.36574  | 8 | 0.724039 | 0.45        | 0.45        |
| Q8CJG1   | Ago1 Eif2c1       | Protein argonaute-1 (Argonaute1) (MA    | -0.5963783 | 0.206463 | -2.88855 | 8 | 0.020244 | 0.535714286 | 0.535714286 |
| Q9CYI4   | Luc7l             | Putative RNA-binding protein Luc7-like  | -0.106701  | 0.277148 | -0.385   | 8 | 0.710274 | 0.277777778 | 0.277777778 |
| Q9CYL5   | Glpr2 Gapr1       | Golgi-associated plant pathogenesis-re  | 0.0921638  | 0.370676 | 0.24864  | 4 | 0.815885 | 0.6         | 0.2         |
| Q9CYN2   | Spcs2 Spc25       | Signal peptidase complex subunit 2 (M   | -0.3169277 | 0.213335 | -1.48559 | 8 | 0.175692 | 0.42        | 0.42        |
| Q9CYQ7   | Narf              | Nuclear prelamin A recognition factor ( | -0.1947286 | 0.121633 | -1.60095 | 5 | 0.170288 | 0.65        | 0.35        |
| Q9CYR6   | Pgm3 Agm1 Pgm-3   | Phosphoacetylglucosamine mutase (P      | 0.1335735  | 0.147539 | 0.90534  | 8 | 0.391733 | 0.364285714 | 0.364285714 |
| Q9CYT6   | Cap2              | Adenylyl cyclase-associated protein 2 ( | -0.3380855 | 0.379274 | -0.8914  | 6 | 0.407037 | 0.666666667 | 0.466666667 |
| Q9CYU6   | Dph7 Wdr85        | Diphthine methyltransferase (EC 3.1.1   | 0.0074249  | 0.091051 | 0.08155  | 6 | 0.937659 | 0.5         | 0.3         |
| Q9CYX7   | Rrp15             | RRP15-like protein (Ribosomal RNA-pr    | 0.3306467  | 0.388477 | 0.85114  | 7 | 0.422851 | 0.1         | 0           |
| Q9CYZ2   | Tpd52l2           | Tumor protein D54 (Tumor protein D5     | 0.1223913  | 0.159375 | 0.76794  | 8 | 0.464582 | 0.283333333 | 0.283333333 |
| Q9CYZ8   | Ssbp2 Ssdp2       | Single-stranded DNA-binding protein 2   | 0.4655598  | 0.79597  | 0.5849   | 5 | 0.584016 | 0.65        | 0.35        |
| D3YTQ3   | Hnrnpdl           | Heterogeneous nuclear ribonucleopro     | -0.6110844 | 0.193539 | -3.15743 | 6 | 0.019629 | 0.5         | 0.3         |
| Q9CZ13   | Uqcrc1            | Cytochrome b-c1 complex subunit 1, i    | -0.0732312 | 0.067879 | -1.07885 | 8 | 0.312107 | 0.188461538 | 0.188461538 |
| Q9CZ15   | Gins1 Psf1        | DNA replication complex GINS protein    | -0.0739605 | 0.390419 | -0.18944 | 5 | 0.857199 | 0.5         | 0.2         |
| Q9CZ28   | Snf8 D11Moh34     | Vacuolar-sorting protein SNF8 (ESCRT    | -0.4267139 | 0.285533 | -1.49445 | 7 | 0.178706 | 0.4         | 0.3         |
| Q9CZ30   | Ola1 Gtpbp9       | Obg-like ATPase 1 (GTP-binding protei   | 0.0309192  | 0.15258  | 0.20264  | 8 | 0.844473 | 0.246428571 | 0.246428571 |
| Q9CZ42-2 | Naxd Carkd        | ATP-dependent (S)-NAD(P)H-hydrate       | -0.0228589 | 0.271413 | -0.08422 | 8 | 0.934949 | 0           | 0           |
| Q9CZ42   | Naxd Carkd        | ATP-dependent (S)-NAD(P)H-hydrate       | -0.7356976 | 0.578637 | -1.27143 | 3 | 0.293197 | 0.5         | 0           |
| Q9CZ44   | Nsfl1c            | NSFL1 cofactor p47 (p97 cofactor p47    | -0.0372042 | 0.214939 | -0.17309 | 8 | 0.866878 | 0.225925926 | 0.225925926 |
| Q9CZ62   | Cep97 Lrriq2      | Centrosomal protein of 97 kDa (Cep97    | -0.2104788 | 0.317391 | -0.66315 | 7 | 0.528458 | 0.55        | 0.45        |
| Q9CQ88   | Tspan31 Sas       | Tetraspanin-31 (Tspan-31) (Sarcoma-     | -0.6162801 | 0.225363 | -2.73461 | 6 | 0.033978 | 0.2         | 0           |
| Q9CZ83   | Mrpl55            | Large ribosomal subunit protein mL55    | -0.7088704 | 0.240633 | -2.94585 | 2 | 0.098501 | 0.6         | 0           |
| Q9CZ91   | Srfbp1            | Serum response factor-binding protei    | -1.065458  | 0.638209 | -1.66945 | 6 | 0.146068 | 0.25        | 0.05        |
| Q9CZ96   | Zcrb1             | Zinc finger CCHC-type and RNA-bindir    | -0.2547588 | 0.224874 | -1.13289 | 3 | 0.339614 | 0.55        | 0.05        |
| Q91X97   | Ncald D15Ert412e  | Neurocalcin-delta                       | -0.6249453 | 0.083865 | -7.45181 | 3 | 0.005003 | 0.65        | 0.15        |
| Q9CZB6   | Med7 Crsp9        | Mediator of RNA polymerase II transcri  | 0.3284239  | 0.320002 | 1.02632  | 7 | 0.338893 | 0.45        | 0.35        |
| Q9CZB9   | Tmem128           | Transmembrane protein 128               | -0.2202365 | 0.256085 | -0.86001 | 1 | 0.547823 | 0.7         | 0           |
| Q9CZC8   | Scrn1 Kiaa0193    | Secernin-1                              | 0.2657427  | 0.199634 | 1.33115  | 8 | 0.219823 | 0.193548387 | 0.193548387 |
| Q9CZD3   | Gars1 Gars        | Glycine--tRNA ligase (EC 6.1.1.14) (Di  | 0.1944022  | 0.168907 | 1.15094  | 8 | 0.282992 | 0.316216216 | 0.316216216 |
| Q9CZG9   | Pdzd11 Pdzk11     | PDZ domain-containing protein 11        | 0.2097284  | 0.412538 | 0.50839  | 7 | 0.626809 | 0.4         | 0.3         |
| Q9CZH3   | Psmg3 Pac3        | Proteasome assembly chaperone 3 (PA     | -0.1818396 | 0.487055 | -0.37335 | 8 | 0.718591 | 0.433333333 | 0.433333333 |
| Q9CZH7   | Mxra7             | Matrix-remodeling-associated protein 7  | -0.2829023 | 0.173459 | -1.63094 | 6 | 0.154024 | 0.2         | 0           |
| Q9CZJ0   | Mpped2            | Metallophosphoesterase MPPED2 (EC       | 0.046431   | 0.228051 | 0.2036   | 8 | 0.84375  | 0.264285714 | 0.264285714 |
| Q9CZL2   | Fam241a           | Uncharacterized protein FAM241A         | 0.1189504  | 0.321146 | 0.37039  | 3 | 0.735696 | 0.5         | 0           |
| Q9CZM2   | Rpl15             | Large ribosomal subunit protein eL15 (  | 0.2795685  | 0.428359 | 0.65265  | 8 | 0.532284 | 0.255555556 | 0.255555556 |

|          |                    |                                           |            |          |          |   |          |             |             |
|----------|--------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9CZN7   | Shmt2              | Serine hydroxymethyltransferase, mito     | -0.0048456 | 0.181396 | -0.02671 | 8 | 0.979343 | 0.253333333 | 0.253333333 |
| Q9CZR8   | Tsfm               | Elongation factor Ts, mitochondrial (El   | 0.1877192  | 0.217724 | 0.86219  | 8 | 0.413681 | 0.366666667 | 0.366666667 |
| Q9CZT6   | Cmss1              | Protein CMSS1 (Cms1 ribosomal smal        | -0.091218  | 0.261065 | -0.34941 | 4 | 0.744403 | 0.4         | 0           |
| Q9CZU3   | Mtrex Skiv2l2      | Exosome RNA helicase MTR4 (EC 3.6.4       | 0.1726029  | 0.176986 | 0.97524  | 8 | 0.358006 | 0.428       | 0.428       |
| Q9CZU4   | Eral1 Mera         | GTPase Era, mitochondrial (M-ERA) (C      | 0.1426895  | 0.157195 | 0.90773  | 6 | 0.399012 | 0.533333333 | 0.333333333 |
| Q9CZU6   | Cs                 | Citrate synthase, mitochondrial (EC 2.    | 0.1838004  | 0.237295 | 0.77456  | 8 | 0.460874 | 0.266666667 | 0.266666667 |
| Q9CZV5   | Supt7l             | STAGA complex 65 subunit gamma (SF        | 0.3830354  | 0.201447 | 1.90142  | 6 | 0.105961 | 0.6         | 0.4         |
| Q9CZW4   | Acs13 Acs3 Fac13   | Fatty acid CoA ligase Acs13 (Arachidon    | -0.2660038 | 0.298424 | -0.89136 | 8 | 0.398749 | 0.4625      | 0.4625      |
| Q9CZW5   | Tomm70 D16Wsu1     | Mitochondrial import receptor subunit     | 0.3681815  | 0.250363 | 1.47059  | 8 | 0.179606 | 0.40625     | 0.40625     |
| Q9CZX0-2 | Elp3               | Elongator complex protein 3 (EC 2.3.1     | -0.1557441 | 0.35167  | -0.44287 | 8 | 0.669591 | 0.404166667 | 0.404166667 |
| Q9CZX5   | Pinx1 Lpts         | PIN2/TERF1-interacting telomerase inh     | -0.1266794 | 0.227433 | -0.557   | 8 | 0.592766 | 0.25        | 0.25        |
| Q9CZX7   | Pip4p2 Tmem55a     | Type 2 phosphatidylinositol 4,5-bisph     | 0.0599344  | 0.255371 | 0.23469  | 8 | 0.820341 | 0.533333333 | 0.533333333 |
| Q9CZX8   | Rps19              | Small ribosomal subunit protein eS19      | -0.2324433 | 0.341855 | -0.67995 | 8 | 0.515727 | 0.258333333 | 0.258333333 |
| Q9CZX9   | Emc4 Tmem85        | ER membrane protein complex subuni        | 0.0258676  | 0.155975 | 0.16585  | 6 | 0.873726 | 0.6         | 0.4         |
| Q9CZY3   | Ube2v1 Croc1       | Ubiquitin-conjugating enzyme E2 varia     | -0.1512903 | 0.191142 | -0.79151 | 8 | 0.451475 | 0.25        | 0.25        |
| Q9D011   | Mplkip Ttdn1       | M-phase-specific PLK1-interacting prot    | -0.3783236 | 0.313554 | -1.20657 | 7 | 0.266788 | 0.3         | 0.2         |
| Q9D020   | Nt5c3a Nt5c3       | Cytosolic 5'-nucleotidase 3A (EC 3.1.3    | -0.1738106 | 0.715064 | -0.24307 | 6 | 0.816048 | 0.2         | 0           |
| Q9D024   | Ccdc47 Asp4        | PAT complex subunit CCDC47 (Adipo         | 0.1183156  | 0.345984 | 0.34197  | 8 | 0.741185 | 0.42        | 0.42        |
| Q9D031   | Rsu1               | Ras suppressor protein 1                  | -0.3431019 | 0.513491 | -0.66817 | 8 | 0.522828 | 0.38        | 0.38        |
| Q9D032   | Ssbp3 Last Ssdp1   | Single-stranded DNA-binding protein 3     | -0.7189742 | 0.357234 | -2.01261 | 8 | 0.078958 | 0.2         | 0.2         |
| Q9D051   | Pdhb               | Pyruvate dehydrogenase E1 componen        | -0.012334  | 0.240801 | -0.05122 | 8 | 0.960406 | 0.277777778 | 0.277777778 |
| Q9D061   | Acdb6              | Acyl-CoA-binding domain-containing p      | 0.1927772  | 0.399015 | 0.48313  | 8 | 0.641946 | 0.46        | 0.46        |
| Q9D066   | Impa1              | Inositol-1-monophosphatase (EC 3.1.       | 0.041724   | 0.184781 | 0.2258   | 8 | 0.827017 | 0.3375      | 0.3375      |
| Q9D071   | Mms19 Mms19l       | MMS19 nucleotide excision repair prot     | -0.2801195 | 0.449641 | -0.62299 | 8 | 0.550637 | 0.445454545 | 0.445454545 |
| Q9D074   | Mgrn1 Kiaa0544     | E3 ubiquitin-protein ligase MGRN1 (EC     | -0.7516815 | 0.361396 | -2.07994 | 5 | 0.092069 | 0.5         | 0.2         |
| Q9D083   | Spc24 Spbc24       | Kinetochore protein Spc24                 | -0.1054497 | 0.612088 | -0.17228 | 8 | 0.867497 | 0.5125      | 0.5125      |
| Q9D0A3   | Arpin              | Arpin (Arp2/3 inhibition protein)         | 0.0974295  | 0.342285 | 0.28464  | 5 | 0.787329 | 0.633333333 | 0.333333333 |
| Q9D0B0   | Srsf9 Sfrs9        | Serine/arginine-rich splicing factor 9 (S | 0.1308029  | 0.241957 | 0.5406   | 8 | 0.603502 | 0.283333333 | 0.283333333 |
| Q9D0B6   | Pbdc1              | Protein PBDC1 (Polysaccharide biosyn      | 0.0815337  | 0.199728 | 0.40822  | 8 | 0.693817 | 0.192857143 | 0.192857143 |
| Q9D0C1   | Rnf115 Zfp364 Znf1 | E3 ubiquitin-protein ligase RNF115 (E     | -0.5937223 | 0.407856 | -1.45572 | 3 | 0.241487 | 0.5         | 0           |
| Q9D0C4   | Trmt5 Kiaa1393 Trm | tRNA (guanine(37)-N1)-methyltransfer      | -0.2318697 | 0.310968 | -0.74564 | 5 | 0.489433 | 0.666666667 | 0.366666667 |
| Q9D0D4   | Dimt1 Dimt1l       | Probable dimethyladenosine transfera      | 0.7162933  | 0.558002 | 1.28368  | 1 | 0.421323 | 0.7         | 0           |
| Q9D0D5   | Gtf2e1             | General transcription factor IIE subuni   | -0.3634505 | 0.163069 | -2.22882 | 8 | 0.056401 | 0.375       | 0.375       |
| Q9D0E1   | Hnrnpm Hnrpm       | Heterogeneous nuclear ribonucleopro       | 0.1388716  | 0.203721 | 0.68168  | 8 | 0.51469  | 0.293055556 | 0.293055556 |
| Q9D0F3   | Lman1 Ergic53      | Protein ERGIC-53 (ER-Golgi intermedi      | -0.3698196 | 0.17555  | -2.10664 | 8 | 0.06823  | 0.283333333 | 0.283333333 |
| Q9D0F4   | Nkap               | NF-kappa-B-activating protein             | 0.3744734  | 0.31094  | 1.20433  | 5 | 0.282357 | 0.65        | 0.35        |
| Q9D0F6   | Rfc5               | Replication factor C subunit 5 (Activat   | -0.3030872 | 0.471489 | -0.64283 | 8 | 0.538318 | 0.333333333 | 0.333333333 |
| Q9D0F9   | Pgm1 Pgm2          | Phosphoglucomutase-1 (PGM 1) (EC 5        | -0.1446165 | 0.139409 | -1.03736 | 8 | 0.329905 | 0.327777778 | 0.327777778 |

|          |                        |                                                            |            |          |          |    |          |             |             |
|----------|------------------------|------------------------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q9D0G0   | Mrps30                 | Large ribosomal subunit protein mL65                       | -0.0663728 | 0.283782 | -0.23389 | 8  | 0.820947 | 0.4125      | 0.4125      |
| Q9D0I8   | Mrto4 Mrt4             | mRNA turnover protein 4 homolog (Ril                       | -0.1206581 | 0.161917 | -0.74518 | 8  | 0.47748  | 0.22222222  | 0.22222222  |
| Q9D0I9   | Rars1 Rars             | Arginine--tRNA ligase, cytoplasmic (EC                     | 0.0747605  | 0.19508  | 0.38323  | 8  | 0.711532 | 0.346153846 | 0.346153846 |
| Q9D0J4   | Arl2                   | ADP-ribosylation factor-like protein 2                     | 0.0633221  | 0.335003 | 0.18902  | 8  | 0.854785 | 0.466666667 | 0.466666667 |
| Q9D0K1   | Pex13                  | Peroxisomal membrane protein PEX13                         | 0.4860785  | 1.170274 | 0.41535  | 1  | 0.74938  | 0.7         | 0           |
| Q9D0K2   | Oxct1 Oxct Scot        | Succinyl-CoA:3-ketoacid coenzyme A t                       | 0.2419726  | 0.207046 | 1.16869  | 8  | 0.276171 | 0.278571429 | 0.278571429 |
| Q9D0L7   | Armc10                 | Armadillo repeat-containing protein 10                     | -0.0616999 | 0.203481 | -0.30322 | 3  | 0.781532 | 0.5         | 0           |
| Q9D0L8   | Rnmt Kiaa0398          | mRNA cap guanine-N7 methyltransferase                      | 0.0009698  | 0.19319  | 0.00502  | 8  | 0.996118 | 0.225       | 0.225       |
| Q9D0M0   | Exosc7 Rrp42           | Exosome complex exonuclease RRP42                          | -0.0456401 | 0.102984 | -0.44318 | 8  | 0.669378 | 0.283333333 | 0.283333333 |
| Q9D0M1   | Prpsap1                | Phosphoribosyl pyrophosphate synthetase                    | 0.0607385  | 0.175703 | 0.34569  | 8  | 0.738492 | 0.3125      | 0.3125      |
| Q91YX7   | Rasa1                  | RAS p21 protein activator 1                                | -0.6288989 | 0.268052 | -2.34618 | 8  | 0.04696  | 0.566666667 | 0.566666667 |
| Q9D0M3   | Cyc1                   | Cytochrome c1, heme protein, mitochondrial                 | 0.0368697  | 0.09791  | 0.37657  | 8  | 0.716286 | 0.276923077 | 0.276923077 |
| Q9D0M5   | Dynl2 Dlc2             | Dynein light chain 2, cytoplasmic (8 kDa)                  | 0.1499714  | 0.522694 | 0.28692  | 8  | 0.781465 | 0.233333333 | 0.233333333 |
| Q9D0N7   | Chaf1b                 | Chromatin assembly factor 1 subunit 1                      | 0.0042645  | 0.292849 | 0.01456  | 8  | 0.988738 | 0.454545455 | 0.454545455 |
| Q9D0P7   | Prsrc1 Dda3            | Proline/serine-rich coiled-coil protein 1                  | -0.3480943 | 0.263313 | -1.32198 | 7  | 0.227736 | 0.6         | 0.5         |
| Q9D0Q7   | Mrpl45                 | Large ribosomal subunit protein mL45                       | 0.3830241  | 0.205929 | 1.85998  | 8  | 0.099933 | 0.466666667 | 0.466666667 |
| Q9D0R2   | Tars1 Tars             | Threonine--tRNA ligase 1, cytoplasmic                      | 0.2749127  | 0.201053 | 1.36736  | 8  | 0.208691 | 0.286206897 | 0.286206897 |
| Q9D0R4   | Ddx56 D11Ert619        | Probable ATP-dependent RNA helicase                        | -0.1875379 | 0.412266 | -0.4549  | 6  | 0.66518  | 0.55        | 0.35        |
| Q9D0R8   | Lsm12                  | Protein LSM12                                              | -0.0919101 | 0.275825 | -0.33322 | 8  | 0.747534 | 0.3         | 0.3         |
| P23242   | Gja1 Cxn-43            | Gap junction alpha-1 protein (Connexin43)                  | -0.628952  | 0.18995  | -3.31114 | 4  | 0.029623 | 0.45        | 0.05        |
| Q9D0T1   | Snu13 Nhp2l1 Ssfa      | NHP2-like protein 1 (Fertilization antigen-like protein 2) | -0.0050768 | 0.185798 | -0.02732 | 8  | 0.97887  | 0.3         | 0.3         |
| Q9D0W5   | Ppil1                  | Peptidyl-prolyl cis-trans isomerase-like                   | 0.2591327  | 0.258585 | 1.00212  | 8  | 0.345631 | 0.2         | 0.2         |
| Q9D0Y8   | Mrpl52                 | Large ribosomal subunit protein mL52                       | -0.504171  | 0.455032 | -1.10799 | 6  | 0.310295 | 0.2         | 0           |
| Q9D104   | Srp19                  | Signal recognition particle 19 kDa protein                 | 0.1637794  | 0.192875 | 0.84915  | 8  | 0.420481 | 0.333333333 | 0.333333333 |
| Q9D115   | Znf706 Zfp706          | Zinc finger protein 706                                    | -0.3224287 | 0.409875 | -0.78665 | 7  | 0.457286 | 0.1         | 0           |
| Q9D142   | Nudt14                 | Uridine diphosphate glucose pyrophosphorylase              | NA         | NA       | NA       | NA | NA       | NA          | NA          |
| Q9D164-2 | Fxyd6 Plp              | FXD domain-containing ion transport                        | -0.2021414 | 0.19702  | -1.02599 | 3  | 0.380393 | 0.5         | 0           |
| Q9D168   | Ints12 Phf22           | Integrator complex subunit 12 (Int12)                      | -0.1947213 | 0.206454 | -0.94317 | 8  | 0.373202 | 0.36        | 0.36        |
| Q9D172   | Gatd3 D10Jhu81e C      | Glutamine amidotransferase-like class                      | 0.1080802  | 0.184458 | 0.58593  | 8  | 0.574075 | 0.3125      | 0.3125      |
| Q9D187   | Ciao2b Fam96b Mip      | Cytosolic iron-sulfur assembly component                   | 0.2708119  | 0.168428 | 1.60788  | 8  | 0.146528 | 0.228571429 | 0.228571429 |
| Q9D198   | Syf2 Cbpip Gcipip      | Pre-mRNA-splicing factor SYF2 (CCND1)                      | -0.0317785 | 0.372694 | -0.08527 | 8  | 0.934144 | 0.45        | 0.45        |
| P41230   | Kdm5c Jarid1c Kiaa0101 | Lysine-specific demethylase 5C (EC 1.1.1.60)               | -0.6328296 | 0.153274 | -4.12875 | 3  | 0.025771 | 0.65        | 0.15        |
| Q9D1B9   | Mrpl28                 | Large ribosomal subunit protein mL28                       | 0.0307239  | 0.26492  | 0.11597  | 8  | 0.910531 | 0.3         | 0.3         |
| Q9D1C1   | Ube2c Ubch10           | Ubiquitin-conjugating enzyme E2 C (E2)                     | 0.3046318  | 0.152396 | 1.99895  | 8  | 0.080648 | 0.255555556 | 0.255555556 |
| Q9D1C8   | Vps28                  | Vacuolar protein sorting-associated protein 28             | 0.63333    | 0.544388 | 1.16338  | 8  | 0.278199 | 0.430769231 | 0.430769231 |
| Q9D1C9   | Rrp7a                  | Ribosomal RNA-processing protein 7                         | -0.1779512 | 0.361615 | -0.4921  | 7  | 0.637704 | 0.4         | 0.3         |
| Q9D1D4   | Tmed10 Tmp21           | Transmembrane emp24 domain-containing protein              | 0.0592405  | 0.230138 | 0.25741  | 8  | 0.803357 | 0.4         | 0.4         |
| Q9D1E6   | Tbcb Ckap1             | Tubulin-folding cofactor B (Cytoskeleton)                  | 0.4075039  | 0.674705 | 0.60397  | 8  | 0.562592 | 0.354545455 | 0.354545455 |

|        |                    |                                         |            |          |          |   |          |             |             |
|--------|--------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q3UMY5 | Eml4               | Echinoderm microtubule-associated p     | -0.6483902 | 0.226803 | -2.85882 | 8 | 0.02119  | 0.45        | 0.45        |
| Q9D1G1 | Rab1b              | Ras-related protein Rab-1B (EC 3.6.5.2  | -0.0158922 | 0.560499 | -0.02835 | 8 | 0.978075 | 0.183333333 | 0.183333333 |
| Q9D1G2 | Pmvk               | Phosphomevalonate kinase (PMKase) (     | 0.3321789  | 0.455892 | 0.72863  | 8 | 0.487004 | 0.3875      | 0.3875      |
| Q9D1G5 | Lrrc57             | Leucine-rich repeat-containing protein  | -0.3110235 | 0.401828 | -0.77402 | 8 | 0.461177 | 0.225       | 0.225       |
| Q9D1H7 | Get4               | Golgi to ER traffic protein 4 homolog   | 0.0509372  | 0.417523 | 0.122    | 8 | 0.905909 | 0.375       | 0.375       |
| Q9D1H8 | Mrpl53             | Large ribosomal subunit protein mL53    | 0.8456564  | 0.753482 | 1.12233  | 3 | 0.343444 | 0.55        | 0.05        |
| Q9D1I5 | Mcee               | Methylmalonyl-CoA epimerase, mitoch     | 0.2038208  | 0.310527 | 0.65637  | 3 | 0.558439 | 0.5         | 0           |
| Q9D1I6 | Mrpl14             | Large ribosomal subunit protein uL14r   | 0.0474299  | 0.194306 | 0.2441   | 7 | 0.814155 | 0.4         | 0.3         |
| Q9D1J3 | Sarnp Hcc1         | SAP domain-containing ribonucleopro     | -0.1369099 | 0.526988 | -0.2598  | 2 | 0.819319 | 0.6         | 0           |
| Q9D1K2 | Atp6v1f Atp6s14 V  | V-type proton ATPase subunit F (V-ATF   | 0.054972   | 0.859527 | 0.06396  | 7 | 0.950793 | 0.471428571 | 0.371428571 |
| Q9D1K7 | Adissp             | Adipose-secreted signaling protein      | 0.0563868  | 0.188404 | 0.29929  | 8 | 0.772349 | 0.18        | 0.18        |
| Q9D1L9 | Lamtor5 Hbxip Xip  | Ragulator complex protein LAMTOR5 (l    | 0.1841547  | 0.163667 | 1.12518  | 8 | 0.293135 | 0.34        | 0.34        |
| Q9D1M0 | Sec13 Sec13l1      | Protein SEC13 homolog (GATOR2 con       | 0.0317024  | 0.141022 | 0.2248   | 8 | 0.827767 | 0.315384615 | 0.315384615 |
| Q9D1M4 | Eef1e1             | Eukaryotic translation elongation factc | 0.219631   | 0.398792 | 0.55074  | 8 | 0.596851 | 0.390909091 | 0.390909091 |
| Q9D1N9 | Mrpl21 D9Wsu149    | Large ribosomal subunit protein bL21r   | 0.0241335  | 0.24019  | 0.10048  | 8 | 0.922438 | 0.4         | 0.4         |
| Q9D1P0 | Mrpl13             | Large ribosomal subunit protein uL13r   | -0.1836952 | 0.310854 | -0.59094 | 8 | 0.570876 | 0.3         | 0.3         |
| Q9D1P4 | Chordc1 Chp1 Mor   | Cysteine and histidine-rich domain-co   | 0.0931186  | 0.140128 | 0.66453  | 8 | 0.525041 | 0.16        | 0.16        |
| Q9D1Q1 | Mphosph6           | M-phase phosphoprotein 6                | -0.016577  | 0.358354 | -0.04626 | 5 | 0.964895 | 0.6         | 0.3         |
| Q9D1Q4 | Dpm3               | Dolichol-phosphate mannosyltransfer     | -0.3142095 | 0.222604 | -1.41152 | 3 | 0.252931 | 0.5         | 0           |
| O08550 | Kmt2b Mll2 Trx2 Wb | Histone-lysine N-methyltransferase 2B   | -0.6516122 | 0.05098  | -12.7817 | 2 | 0.006065 | 0.6         | 0           |
| Q9D1R2 | Kti12              | Protein KTI12 homolog                   | 0.4043452  | 0.427128 | 0.94666  | 6 | 0.38036  | 0.5         | 0.3         |
| Q9D1R9 | Rpl34              | Large ribosomal subunit protein eL34 (  | -0.0626735 | 0.263148 | -0.23817 | 8 | 0.817738 | 0.3625      | 0.3625      |
| Q9D1T5 | Prr15 G90          | Proline-rich protein 15                 | -0.2820656 | 0.317391 | -0.8887  | 2 | 0.467928 | 0.6         | 0           |
| Q9D211 | Cdkn2aipnl D11Ert  | CDKN2AIP N-terminal-like protein (CD    | 0.6531527  | 1.351468 | 0.48329  | 4 | 0.654152 | 0.4         | 0           |
| Q9D219 | Bcl9               | B-cell CLL/lymphoma 9 protein (B-cell   | 0.6468938  | 0.379578 | 1.70425  | 8 | 0.126736 | 0.453846154 | 0.453846154 |
| Q9D287 | Bcas2 Dam1         | Pre-mRNA-splicing factor SPF27 (Brea    | 0.2155708  | 0.159228 | 1.35385  | 8 | 0.212788 | 0.194444444 | 0.194444444 |
| P97863 | Nfib               | Nuclear factor 1 B-type (NF1-B) (Nucle  | -0.6666285 | 0.217144 | -3.06999 | 8 | 0.015348 | 0.3         | 0.3         |
| Q9D2C2 | Saal1              | Protein SAAL1 (Synoviocyte proliferati  | 0.3276549  | 0.155333 | 2.10937  | 8 | 0.06794  | 0.492307692 | 0.492307692 |
| Q9D2D1 | Ctsa Ppgb          | Carboxypeptidase (EC 3.4.16.-)          | 0.0363298  | 0.201341 | 0.18044  | 8 | 0.861295 | 0.3         | 0.3         |
| Q9D2D7 | Znf687 Kiaa1441 Zf | Zinc finger protein 687                 | -0.0088192 | 0.216792 | -0.04068 | 5 | 0.969125 | 0.533333333 | 0.233333333 |
| Q9D2E2 | Toe1               | Target of EGR1 protein 1                | -0.768254  | 0.839304 | -0.91535 | 2 | 0.456637 | 0.6         | 0           |
| Q9D2G2 | Dlst               | Dihydrolipoyllysine-residue succinyltr  | 0.2283111  | 0.231015 | 0.9883   | 8 | 0.351952 | 0.281818182 | 0.281818182 |
| Q9D2H6 | Sp2 Kiaa0048       | Transcription factor Sp2                | -0.4004614 | 0.291617 | -1.37324 | 6 | 0.218783 | 0.45        | 0.25        |
| Q9D2M8 | Ube2v2 Mms2 Uev2   | Ubiquitin-conjugating enzyme E2 varia   | 0.600942   | 0.423492 | 1.41902  | 8 | 0.193659 | 0.38        | 0.38        |
| Q9D2N4 | Dtna Dtn           | Dystrobrevin alpha (DTN-A) (Alpha-dy    | 0.4775233  | 0.397505 | 1.2013   | 2 | 0.352596 | 0.6         | 0           |
| Q9D2R0 | Aacs               | Acetoacetyl-CoA synthetase (EC 6.2.1.   | -0.2285402 | 0.313684 | -0.72857 | 8 | 0.487043 | 0.35        | 0.35        |
| Q9D2R6 | Coa3 Ccdc56        | Cytochrome c oxidase assembly factor    | -0.4528217 | 0.251626 | -1.79958 | 3 | 0.169751 | 0.5         | 0           |
| Q9D2U5 | Naa38 Lsmid1       | N-alpha-acetyltransferase 38, NatC au   | 0.4019915  | 0.486733 | 0.8259   | 3 | 0.469415 | 0.5         | 0           |

|        |                   |                                          |            |          |          |   |          |             |             |
|--------|-------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9D2U9 | H2bu2 Hist3h2ba   | H2B.U histone 2 (Histone H2B type 3-     | -0.1235304 | 0.307865 | -0.40125 | 8 | 0.698741 | 0.325       | 0.325       |
| Q9D2V5 | Aar2              | Protein AAR2 homolog (AAR2 splicing      | -0.1325493 | 0.230672 | -0.57462 | 6 | 0.58643  | 0.55        | 0.35        |
| P23188 | Furin Fur Pcsk3   | Furin (EC 3.4.21.75) (Dibasic-processi   | -0.6683364 | 0.12655  | -5.28119 | 3 | 0.01324  | 0.5         | 0           |
| Q9D328 | Tmem35a Nacho Tr  | Novel acetylcholine receptor chaperon    | 0.2419563  | 0.393134 | 0.61545  | 8 | 0.555355 | 0.35        | 0.35        |
| Q9D338 | Mrpl19            | Large ribosomal subunit protein bL19r    | 0.2852162  | 0.127523 | 2.23659  | 8 | 0.055721 | 0.425       | 0.425       |
| Q9D358 | Acp1              | Low molecular weight phosphotyrosin      | -0.0269734 | 0.136448 | -0.19768 | 8 | 0.848223 | 0.05        | 0.05        |
| Q9D385 | Arl2bp Bart Bart1 | ADP-ribosylation factor-like protein 2-  | -0.18      | 0.256591 | -0.7015  | 4 | 0.521655 | 0.7         | 0.3         |
| P52479 | Usp10 Kiaa0190 Oc | Ubiquitin carboxyl-terminal hydrolase    | -0.6709693 | 0.173643 | -3.86406 | 3 | 0.030649 | 0.5         | 0           |
| Q9D394 | Rufy3 D5Bwg0860e  | Protein RUFY3 (Rap2-interacting prote    | 0.375186   | 0.249614 | 1.50307  | 7 | 0.176525 | 0.25        | 0.15        |
| Q9D3A8 | Nos1ap Capon Kiaa | Carboxyl-terminal PDZ ligand of neuro    | -0.7252096 | 0.74101  | -0.97868 | 2 | 0.430945 | 0.6         | 0           |
| Q9D3D9 | Atp5f1d Atp5d     | ATP synthase subunit delta, mitochon     | 0.9892667  | 0.547215 | 1.80782  | 8 | 0.108251 | 0.325       | 0.325       |
| Q9D3E6 | Stag1 Sa1         | Cohesin subunit SA-1 (SCC3 homolo        | -0.312033  | 0.41821  | -0.74612 | 5 | 0.489169 | 0.633333333 | 0.333333333 |
| Q9D3P8 | Plgrkt            | Plasminogen receptor (KT) (Plg-R(KT))    | -0.3622613 | 0.255628 | -1.41714 | 3 | 0.251442 | 0.55        | 0.05        |
| Q9D3U0 | Pus10 Ccdc139     | tRNA pseudouridine synthase Pus10 (      | 0.4552685  | 0.480234 | 0.94801  | 8 | 0.370876 | 0.375       | 0.375       |
| Q9D486 | Cmip Kiaa1694     | C-Maf-inducing protein (c-Mip)           | 0.1981747  | 0.349121 | 0.56764  | 8 | 0.585853 | 0.533333333 | 0.533333333 |
| Q9D4G5 | Pop1              | Processing of precursor 1, ribonucleas   | -0.0333706 | 0.434546 | -0.07679 | 7 | 0.940936 | 0.35        | 0.25        |
| Q9D4H1 | Exoc2 Sec5 Sec5l1 | Exocyst complex component 2 (Exocy       | 0.0643129  | 0.340643 | 0.1888   | 8 | 0.854953 | 0.5         | 0.5         |
| Q9D4H8 | Cul2              | Cullin-2 (CUL-2)                         | -0.0035478 | 0.372183 | -0.00953 | 8 | 0.992628 | 0.516666667 | 0.516666667 |
| Q9D4H9 | Phf14             | PHD finger protein 14                    | 0.6115605  | 0.444748 | 1.37507  | 8 | 0.206386 | 0.42        | 0.42        |
| Q9D4J7 | Phf6 Kiaa1823     | PHD finger protein 6                     | 0.0648168  | 0.16887  | 0.38383  | 8 | 0.711107 | 0.283333333 | 0.283333333 |
| Q9D554 | Sf3a3 Sap61       | Splicing factor 3A subunit 3 (SF3a60)    | 0.0841059  | 0.14478  | 0.58092  | 8 | 0.577287 | 0.2625      | 0.2625      |
| Q9D5T0 | Atad1             | Outer mitochondrial transmembrane h      | -0.3334242 | 0.323642 | -1.03022 | 8 | 0.333042 | 0.375       | 0.375       |
| Q9D5V5 | Cul5              | Cullin-5 (CUL-5)                         | 0.160381   | 0.330077 | 0.48589  | 8 | 0.640075 | 0.407692308 | 0.407692308 |
| G3UWZ0 | Baz1a             | Bromodomain adjacent to zinc finger c    | -0.6820432 | 0.234292 | -2.91108 | 7 | 0.022626 | 0.6         | 0.5         |
| Q9DBT3 | Ccdc97 D7Ert462   | Coiled-coil domain-containing protein    | -0.6883876 | 0.213015 | -3.23164 | 5 | 0.023164 | 0.5         | 0.2         |
| Q9D662 | Sec23b            | Protein transport protein Sec23B (SEC    | 0.0363572  | 0.174731 | 0.20808  | 8 | 0.84037  | 0.48125     | 0.48125     |
| Q9D666 | Sun1 Unc84a       | SUN domain-containing protein 1 (Prc     | -0.4086396 | 0.730657 | -0.55928 | 7 | 0.593407 | 0.3         | 0.2         |
| P59808 | Sash1             | SAM and SH3 domain-containing prot       | -0.7290398 | 0.048443 | -15.0494 | 1 | 0.04224  | 0.7         | 0           |
| Q9D6J3 | Yju2 Ccdc94       | Splicing factor YJU2 (Coiled-coil doma   | 0.1252252  | 0.395352 | 0.31674  | 3 | 0.7722   | 0.5         | 0           |
| Q9D6J5 | Ndufb8            | NADH dehydrogenase [ubiquinone] 1 b      | -0.137232  | 0.164391 | -0.83479 | 8 | 0.428059 | 0.277777778 | 0.277777778 |
| Q9D6J6 | Ndufv2            | NADH dehydrogenase [ubiquinone] fla      | 0.3214812  | 0.183693 | 1.7501   | 8 | 0.118215 | 0.31        | 0.31        |
| Q9D6K5 | Synj2bp Arip2 Omp | Synaptojanin-2-binding protein (Activi   | -0.6826316 | 0.763633 | -0.89393 | 3 | 0.437227 | 0.5         | 0           |
| Q9D6L8 | Ppil3 Cyp10l      | Peptidyl-prolyl cis-trans isomerase-like | 0.7060274  | 0.362692 | 1.94663  | 8 | 0.087446 | 0.3         | 0.3         |
| Q9D6M3 | Slc25a22 Gc1      | Mitochondrial glutamate carrier 1 (GC-   | -0.1033361 | 0.27513  | -0.37559 | 8 | 0.716985 | 0.42        | 0.42        |
| Q9D6N5 | Drap1             | Dr1-associated corepressor (Dr1-asso     | 0.307472   | 0.237239 | 1.29604  | 8 | 0.231098 | 0.275       | 0.275       |
| Q9D6R2 | Idh3a             | Isocitrate dehydrogenase [NAD] subun     | 0.3915121  | 0.279786 | 1.39933  | 8 | 0.199274 | 0.3125      | 0.3125      |
| Q9D6S7 | Mrrf              | Ribosome-recycling factor, mitochond     | 0.2292936  | 0.238734 | 0.96045  | 8 | 0.364952 | 0.433333333 | 0.433333333 |
| Q9D6T0 | Nosip             | Nitric oxide synthase-interacting prote  | 0.0365804  | 0.121361 | 0.30142  | 8 | 0.770782 | 0.366666667 | 0.366666667 |

|        |                   |                                          |            |          |          |   |          |             |             |
|--------|-------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9D6U8 | Fam162a E2ig5     | Protein FAM162A (E2-induced gene 5       | -0.4272223 | 0.208985 | -2.04427 | 8 | 0.075174 | 0.342857143 | 0.342857143 |
| Q9D6Y7 | Msra              | Mitochondrial peptide methionine sulf    | 0.2318566  | 0.105717 | 2.19319  | 8 | 0.059624 | 0.414285714 | 0.414285714 |
| Q9D6Y9 | Gbe1              | 1,4-alpha-glucan-branching enzyme (E     | -0.3561027 | 0.214031 | -1.66379 | 7 | 0.140103 | 0.35        | 0.25        |
| Q9D6Z1 | Nop56 Nol5a       | Nucleolar protein 56 (Nucleolar protei   | -0.0627861 | 0.193021 | -0.32528 | 8 | 0.753312 | 0.214814815 | 0.214814815 |
| Q9D706 | Rpap3 D15Ert682   | RNA polymerase II-associated protein 3   | 0.1058288  | 0.202333 | 0.52304  | 8 | 0.615118 | 0.316666667 | 0.316666667 |
| Q9D710 | Tmx2 Txndc14      | Thioredoxin-related transmembrane pr     | -0.0095624 | 0.267443 | -0.03575 | 8 | 0.972354 | 0.528571429 | 0.528571429 |
| Q9D720 | Nsmce1            | Non-structural maintenance of chrom      | -0.4124503 | 0.262722 | -1.56991 | 4 | 0.191523 | 0.6         | 0.2         |
| Q9D727 |                   | Uncharacterized protein C6orf226 hom     | 0.6527179  | 0.666678 | 0.97906  | 8 | 0.356225 | 0           | 0           |
| Q9D735 | Trir              | Telomerase RNA component interactin      | -0.0625601 | 0.225372 | -0.27759 | 8 | 0.788369 | 0.266666667 | 0.266666667 |
| Q9D771 | Pacc1 Tmem206     | Proton-activated chloride channel (PA    | -0.2062844 | 0.12484  | -1.65239 | 2 | 0.240261 | 0.6         | 0           |
| Q9D773 | Mrpl2             | Large ribosomal subunit protein uL2m     | 0.1592106  | 0.214269 | 0.74304  | 8 | 0.478706 | 0.3         | 0.3         |
| Q9D786 | Haus5 Kiaa0841    | HAUS augmin-like complex subunit 5       | 0.3097384  | 0.239254 | 1.2946   | 8 | 0.231573 | 0.4         | 0.4         |
| Q9D787 | Ppil2             | RING-type E3 ubiquitin-protein ligase I  | 0.3263785  | 0.409842 | 0.79635  | 8 | 0.448812 | 0.39        | 0.39        |
| Q9D7A8 | Armc1             | Armado repeat-containing protein 1       | 0.3635907  | 0.360027 | 1.0099   | 8 | 0.34211  | 0.1         | 0.1         |
| Q9D7B6 | Acad8             | Isobutyryl-CoA dehydrogenase, mitoch     | 0.122739   | 0.13693  | 0.89636  | 8 | 0.396231 | 0.5         | 0.5         |
| Q9D7E3 | Ovca2             | Esterase OVCA2 (EC 3.1.2.-) (Ovarian     | 0.5987337  | 0.442557 | 1.3529   | 4 | 0.247503 | 0.65        | 0.25        |
| Q9D7E4 |                   | UPF0449 protein C19orf25 homolog         | -0.4613332 | 0.298932 | -1.54327 | 8 | 0.161341 | 0.333333333 | 0.333333333 |
| Q9D7G0 | Prps1             | Ribose-phosphate pyrophosphokinase       | 0.4918513  | 0.686384 | 0.71658  | 7 | 0.496837 | 0.375       | 0.275       |
| E9PY46 | lft140 WDTC2      | Intraflagellar transport protein 140 hom | -0.7430065 | 0.106247 | -6.99323 | 3 | 0.006003 | 0.5         | 0           |
| Q9D7K2 | Ten1              | CST complex subunit TEN1 (Protein te     | -0.138563  | 0.410909 | -0.33721 | 2 | 0.768058 | 0.6         | 0           |
| Q9D7M1 | Gid8              | Glucose-induced degradation protein 1    | 0.6526603  | 0.462748 | 1.4104   | 8 | 0.196098 | 0.266666667 | 0.266666667 |
| Q9D7M8 | Polr2d            | DNA-directed RNA polymerase II subun     | -0.4086059 | 0.455977 | -0.89611 | 7 | 0.39996  | 0.385714286 | 0.285714286 |
| Q9D7N3 | Mrps9             | Small ribosomal subunit protein uS9r     | 0.1263299  | 0.222349 | 0.56816  | 8 | 0.585515 | 0.35        | 0.35        |
| Q9D7N6 | Mrpl30            | Large ribosomal subunit protein uL30r    | -0.1930101 | 0.292713 | -0.65938 | 2 | 0.577422 | 0.6         | 0           |
| Q9D7N9 | Apmmap            | Adipocyte plasma membrane-associated     | -0.0059733 | 0.380463 | -0.0157  | 8 | 0.987858 | 0.383333333 | 0.383333333 |
| Q9D7P6 | Iscu Nifun        | Iron-sulfur cluster assembly enzyme IS   | 0.5748602  | 0.298729 | 1.92436  | 5 | 0.1123   | 0.3         | 0           |
| Q9D7S7 | Rpl22l1           | Ribosomal protein eL22-like 1 (60S rib   | -0.1778705 | 0.238386 | -0.74615 | 8 | 0.47693  | 0.214285714 | 0.214285714 |
| Q9D7S9 | Chmp5 Snf7dc2     | Charged multivesicular body protein 5    | 0.3775057  | 0.232528 | 1.62349  | 8 | 0.143141 | 0.3         | 0.3         |
| Q9D7W5 | Med8 MNCb-2386    | Mediator of RNA polymerase II transcri   | 0.4541907  | 0.4041   | 1.12396  | 8 | 0.293623 | 0.5         | 0.5         |
| Q9D7Z3 | Nol7 MNCb-1192    | U3 small nucleolar RNA-associated pro    | 0.903655   | 0.424705 | 2.12772  | 7 | 0.070908 | 0.625       | 0.525       |
| Q9D818 | Sapcd2            | Suppressor APC domain-containing pr      | -0.4750612 | 0.266134 | -1.78505 | 5 | 0.134319 | 0.5         | 0.2         |
| Q9D819 | Ppa1 Pp Pyp       | Inorganic pyrophosphatase (EC 3.6.1.     | -0.2237665 | 0.459982 | -0.48647 | 4 | 0.652086 | 0.4         | 0           |
| Q9D820 | Prorsd1 Prdxdd1   | Prolyl-tRNA synthetase associated dom    | 0.1622943  | 0.164892 | 0.98425  | 2 | 0.428761 | 0.6         | 0           |
| Q9D824 | Fip111            | Pre-mRNA 3'-end-processing factor FIF    | 0.0201009  | 0.16812  | 0.11956  | 8 | 0.907778 | 0.193333333 | 0.193333333 |
| Q9D853 | Eef1akmt2 Mettl10 | EEF1A lysine methyltransferase 2 (EC :   | 0.0689012  | 0.229584 | 0.30011  | 8 | 0.771741 | 0.275       | 0.275       |
| Q9D855 | Uqcrb             | Cytochrome b-c1 complex subunit 7 (      | 0.1373437  | 0.309933 | 0.44314  | 8 | 0.669403 | 0.28        | 0.28        |
| Q9D880 | Timm50 Tim50      | Mitochondrial import inner membrane      | -0.0842238 | 0.065551 | -1.28486 | 8 | 0.234792 | 0.192307692 | 0.192307692 |
| Q9D882 | Fam241b           | Protein FAM241B                          | 0.1604906  | 0.217263 | 0.73869  | 7 | 0.484119 | 0.4         | 0.3         |

|          |                  |                                         |            |          |          |   |          |             |             |
|----------|------------------|-----------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9D883   | U2af1            | Splicing factor U2AF 35 kDa subunit (l  | 0.0334744  | 0.190396 | 0.17582  | 8 | 0.864808 | 0.2125      | 0.2125      |
| Q9D892   | ltpa             | Inosine triphosphate pyrophosphatase    | 0.2427271  | 0.153417 | 1.58214  | 8 | 0.152274 | 0.146666667 | 0.146666667 |
| Q9D898   | Arpc5l           | Actin-related protein 2/3 complex subu  | 0.0023456  | 0.254564 | 0.00921  | 8 | 0.992874 | 0.45        | 0.45        |
| O35445   | Rnf5 Ng2         | E3 ubiquitin-protein ligase RNF5 (EC 2  | -0.75176   | 0.026927 | -27.9181 | 1 | 0.022793 | 0.7         | 0           |
| Q9D8B6   | Fam210b          | Protein FAM210B, mitochondrial          | -0.7764122 | 0.981629 | -0.79094 | 5 | 0.464824 | 0.3         | 0           |
| Q9D8B7   | Jam3             | Junctional adhesion molecule C (JAM-C   | -0.1783326 | 0.416683 | -0.42798 | 7 | 0.681524 | 0.625       | 0.525       |
| Q9D8C2   | Tspan13 Tm4sf13  | Tetraspanin-13 (Tspan-13) (Transmem     | 0.2094128  | 0.449032 | 0.46636  | 3 | 0.672731 | 0.5         | 0           |
| Q9D8C6   | Med11            | Mediator of RNA polymerase II transcrip | -0.4180739 | 0.751403 | -0.55639 | 5 | 0.601925 | 0.45        | 0.15        |
| Q9D8E6   | Rpl4             | Large ribosomal subunit protein uL4 (E  | -0.0720604 | 0.272126 | -0.26481 | 8 | 0.797854 | 0.186842105 | 0.186842105 |
| Q9D8M4   | Rpl7l1           | Large ribosomal subunit protein uL30-   | 0.5166975  | 0.294383 | 1.75519  | 8 | 0.117303 | 0.466666667 | 0.466666667 |
| Q9D8M7   | Phf10 Baf45a     | PHD finger protein 10 (BRG1-associat    | 0.359008   | 0.320846 | 1.11894  | 7 | 0.300087 | 0.433333333 | 0.333333333 |
| Q9QYB5   | Add3 Addl        | Gamma-adducin (Adducin-like protein     | -0.7547685 | 0.026445 | -28.5409 | 1 | 0.022296 | 0.7         | 0           |
| Q9D8N2   | Dennd10 Fam45a   | DENN domain-containing protein 10 (     | 0.629515   | 0.541431 | 1.16269  | 7 | 0.283057 | 0.433333333 | 0.333333333 |
| Q9D8S3   | Arfgap3          | ADP-ribosylation factor GTPase-activa   | 0.677579   | 0.874858 | 0.7745   | 5 | 0.473648 | 0.666666667 | 0.366666667 |
| Q9D8S4   | Rexo2 Smfn       | Oligoribonuclease, mitochondrial (EC :  | -0.060507  | 0.281985 | -0.21457 | 3 | 0.843857 | 0.5         | 0           |
| Q9D8S9   | Bola1            | Bola-like protein 1                     | 0.1399576  | 0.166499 | 0.84059  | 8 | 0.424985 | 0.311111111 | 0.311111111 |
| Q9D8T7   | Slirp            | SRA stem-loop-interacting RNA-bindin    | 0.37378    | 0.347671 | 1.0751   | 8 | 0.313684 | 0.25        | 0.25        |
| Q9D8U8   | Snx5             | Sorting nexin-5                         | -0.0414871 | 0.182599 | -0.2272  | 8 | 0.825965 | 0.527272727 | 0.527272727 |
| Q9D8V0-4 | Hm13 H13 Psl3    | Minor histocompatibility antigen H13 (  | 0.0842739  | 0.448934 | 0.18772  | 5 | 0.858476 | 0.3         | 0           |
| Q9D8W5   | Psmd12           | 26S proteasome non-ATPase regulator     | 0.1744848  | 0.285278 | 0.61163  | 8 | 0.557758 | 0.355555556 | 0.355555556 |
| Q9D8X2   | Ccdc124          | Coiled-coil domain-containing protein   | 0.6983125  | 0.441894 | 1.58027  | 8 | 0.1527   | 0.366666667 | 0.366666667 |
| Q9D8X5   | Cnot8            | CCR4-NOT transcription complex subu     | 1.306396   | 0.393194 | 3.32252  | 1 | 0.186117 | 0.7         | 0           |
| Q9D8Y8   | Ing5             | Inhibitor of growth protein 5           | 0.5970682  | 0.629279 | 0.94881  | 5 | 0.386286 | 0.3         | 0           |
| Q9D902   | Gtf2e2           | General transcription factor IIE subuni | 0.051325   | 0.162165 | 0.3165   | 8 | 0.759725 | 0.277777778 | 0.277777778 |
| Q9D903   | Ebna1bp2 Ebp2    | Probable rRNA-processing protein EBF    | 0.2355223  | 0.197582 | 1.19202  | 8 | 0.26741  | 0.425       | 0.425       |
| Q9D906   | Atg7 Apg7l       | Ubiquitin-like modifier-activating enzy | -0.6301715 | 0.446333 | -1.41189 | 2 | 0.293476 | 0.6         | 0           |
| Q9D924   | Isca1 Hbld2      | Iron-sulfur cluster assembly 1 homolo   | -0.5397759 | 0.337731 | -1.59824 | 3 | 0.208281 | 0.5         | 0           |
| Q9D927   | 1810009N02Rik    | Uncharacterized protein                 | 0.2272441  | 0.599416 | 0.37911  | 8 | 0.714471 | 0.366666667 | 0.366666667 |
| Q9D937   |                  | Uncharacterized protein C11orf98 hom    | -0.4479426 | 0.416828 | -1.07465 | 8 | 0.313874 | 0.166666667 | 0.166666667 |
| Q9D945   | Llph             | Protein LLP homolog (Protein LAPS18-    | 0.4102071  | 0.474611 | 0.8643   | 8 | 0.412586 | 0.275       | 0.275       |
| Q9D967   | Mdp1             | Magnesium-dependent phosphatase 1       | 0.3899816  | 0.213151 | 1.8296   | 8 | 0.104701 | 0.325       | 0.325       |
| Q9D9K3   | Aven             | Cell death regulator Aven               | 0.6670353  | 0.305049 | 2.18665  | 7 | 0.065    | 0.58        | 0.48        |
| Q9D9V3   | Echdc1           | Ethylmalonyl-CoA decarboxylase (EC 4    | -0.0408975 | 0.417496 | -0.09796 | 5 | 0.925771 | 0.3         | 0           |
| Q3U224   | Mideas C130039O1 | ELM2 and SANT domain-containing pr      | -0.7645433 | 0.173311 | -4.41139 | 3 | 0.021613 | 0.55        | 0.05        |
| Q9DA08   | Sgf29 Ccdc101    | SAGA-associated factor 29 (Coiled-coi   | 0.4299687  | 0.316181 | 1.35988  | 7 | 0.21604  | 0.5         | 0.4         |
| Q9DAA6   | Exosc1 Csl4      | Exosome complex component CSL4 (E       | -0.0599979 | 0.22608  | -0.26538 | 8 | 0.797425 | 0.32        | 0.32        |
| Q9DAI2   | lft22 Rabl5      | Intraflagellar transport protein 22 hom | 0.1911297  | 0.241214 | 0.79237  | 8 | 0.451002 | 0.354545455 | 0.354545455 |
| Q9DAK9   | Phpt1 Php14      | 14 kDa phosphohistidine phosphatas      | 0.3258728  | 0.353971 | 0.92062  | 8 | 0.384169 | 0.271428571 | 0.271428571 |

|          |                    |                                           |            |          |          |   |          |             |             |
|----------|--------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9DAM7   | Tmem263            | Transmembrane protein 263                 | -0.1566183 | 0.080986 | -1.9339  | 8 | 0.089182 | 0.233333333 | 0.233333333 |
| Q9DAP7   | Asf1b              | Histone chaperone ASF1B (Anti-silenci     | -0.0073286 | 0.146459 | -0.05004 | 7 | 0.96149  | 0.1         | 0           |
| Q9DAR7   | Dcps Dcs1 Hint5    | m7GpppX diphosphatase (EC 3.6.1.59        | -0.0426454 | 0.2169   | -0.19661 | 8 | 0.849033 | 0.278571429 | 0.278571429 |
| Q9DAT2   | Mrgbp              | MRG/MORF4L-binding protein (MRG-bi        | -0.547881  | 0.516044 | -1.06169 | 3 | 0.36627  | 0.5         | 0           |
| Q9DAT5   | Trmu Mtu1 Trmt1    | Mitochondrial tRNA-specific 2-thiouric    | -0.2933309 | 0.381062 | -0.76977 | 6 | 0.470646 | 0.2         | 0           |
| Q9DAU1   | Cnpy3 Prat4a Tnrc5 | Protein canopy homolog 3 (Protein as      | -0.3386769 | 0.276615 | -1.22436 | 6 | 0.266704 | 0.45        | 0.25        |
| Q9DAW6   | Prpf4              | U4/U6 small nuclear ribonucleoproteir     | 0.0900317  | 0.11584  | 0.77721  | 8 | 0.4594   | 0.3625      | 0.3625      |
| Q9DAW9   | Cnn3               | Calponin-3 (Calponin, acidic isoform)     | 0.3593144  | 0.228732 | 1.57089  | 8 | 0.154849 | 0.328571429 | 0.328571429 |
| Q9DB05   | Napa Snapa         | Alpha-soluble NSF attachment protein      | 0.5520075  | 0.402941 | 1.36995  | 8 | 0.207916 | 0.361538462 | 0.361538462 |
| Q9DB07   | Ift46              | Intraflagellar transport protein 46 hom   | 0.425971   | 0.319977 | 1.33126  | 8 | 0.219791 | 0           | 0           |
| Q9DB15   | Mrpl12 Rpml12      | Large ribosomal subunit protein bL12r     | 0.7156906  | 0.357235 | 2.00341  | 8 | 0.080091 | 0.477777778 | 0.477777778 |
| Q9DB20   | Atp5po Atp5o D12\  | ATP synthase subunit O, mitochondria      | 0.1741262  | 0.145364 | 1.19787  | 8 | 0.265251 | 0.19375     | 0.19375     |
| Q9DB25   | Alg5               | Dolichyl-phosphate beta-glucosyltrans     | 0.3133042  | 0.60217  | 0.52029  | 1 | 0.694582 | 0.7         | 0           |
| Q14AX6   | Cdk12 Crk7 Crkrs K | Cyclin-dependent kinase 12 (EC 2.7.11     | -0.7716617 | 0.134198 | -5.75015 | 4 | 0.004535 | 0.6         | 0.2         |
| Q9DB29   | Iah1               | Isoamyl acetate-hydrolyzing esterase 1    | -0.0311306 | 0.209602 | -0.14852 | 8 | 0.885606 | 0.3875      | 0.3875      |
| Q9DB40   | Med27 Crsp8        | Mediator of RNA polymerase II transcrip   | 0.0902942  | 0.302694 | 0.2983   | 5 | 0.777471 | 0.5         | 0.2         |
| Q9DB42   | Znf593 Zfp593      | Zinc finger protein 593 (Zinc finger pro  | 0.051629   | 0.119438 | 0.43227  | 8 | 0.676964 | 0.475       | 0.475       |
| Q9DB43   | Zfp1               | Zinc finger protein-like 1                | 0.683334   | 0.391065 | 1.74736  | 7 | 0.124069 | 0.433333333 | 0.333333333 |
| Q9DB60   | Prxl2b Fam213b     | Prostamide/prostaglandin F synthase (     | 0.0417362  | 0.400883 | 0.10411  | 8 | 0.919644 | 0.266666667 | 0.266666667 |
| Q9DB77   | Uqcrc2             | Cytochrome b-c1 complex subunit 2, i      | 0.1131464  | 0.052373 | 2.16041  | 8 | 0.062749 | 0.178125    | 0.178125    |
| Q9DB85   | Rrp8               | Ribosomal RNA-processing protein 8 (      | 0.1239018  | 0.479639 | 0.25832  | 1 | 0.839065 | 0.7         | 0           |
| Q9DB90   | Smg9               | Nonsense-mediated mRNA decay factc        | 0.224611   | 0.508445 | 0.44176  | 8 | 0.67036  | 0.333333333 | 0.333333333 |
| Q9DB91   | Med29 Ixl          | Mediator of RNA polymerase II transcrip   | 0.8179784  | 0.819529 | 0.99811  | 8 | 0.347456 | 0.2         | 0.2         |
| A2AJK6   | Chd7               | Chromodomain-helicase-DNA-binding         | -0.7862367 | 0.259046 | -3.03512 | 8 | 0.016183 | 0.566666667 | 0.566666667 |
| Q9DBC0   | Selenoo Selo       | Protein adenyltransferase SeO, mito       | 0.0906157  | 0.423966 | 0.21373  | 7 | 0.836847 | 0.45        | 0.35        |
| Q9DBC3   | Cmtr1 Ftsjd2 Kiaa0 | Cap-specific mRNA (nucleoside-2'-O-)      | -0.189811  | 0.385793 | -0.492   | 8 | 0.635933 | 0.55        | 0.55        |
| Q8BMB0   | Emsy               | BRCA2-interacting transcriptional repr    | -0.7882968 | 0.266381 | -2.95928 | 7 | 0.021127 | 0.5         | 0.4         |
| Q9DBD5   | Pelp1 Mnar         | Proline-, glutamic acid- and leucine-ricl | -0.1172333 | 0.212637 | -0.55133 | 8 | 0.596465 | 0.336363636 | 0.336363636 |
| Q9DBE8   | Alg2 MNCb-5081     | Alpha-1,3/1,6-mannosyltransferase AL      | 0.0289858  | 0.151584 | 0.19122  | 8 | 0.853118 | 0.284615385 | 0.284615385 |
| Q9DBE9   | Ftsj3              | pre-rRNA 2'-O-ribose RNA methyltrans      | 0.1272477  | 0.342516 | 0.37151  | 4 | 0.7291   | 0.4         | 0           |
| Q9DBF1-2 | Aldh7a1 Ald7a1     | Alpha-aminoadipic semialdehyde dehy       | -0.0494572 | 0.09127  | -0.54188 | 8 | 0.602664 | 0.340909091 | 0.340909091 |
| Q9DBG3   | Ap2b1 Clapb1       | AP-2 complex subunit beta (AP105B)        | 0.1102299  | 0.132718 | 0.83056  | 8 | 0.430311 | 0.218918919 | 0.218918919 |
| Q9DBG5   | Plin3 M6prbp1 Tip4 | Perilipin-3 (Cargo selection protein TIP  | 0.318214   | 0.246647 | 1.29016  | 8 | 0.233035 | 0.235714286 | 0.235714286 |
| Q9DBG6   | Rpn2               | Dolichyl-diphosphooligosaccharide--p      | -0.1456639 | 0.203596 | -0.71545 | 8 | 0.494677 | 0.257142857 | 0.257142857 |
| Q9DBG7   | Srpra Srpr         | Signal recognition particle receptor su   | -0.0245556 | 0.873099 | -0.02812 | 6 | 0.978475 | 0.55        | 0.35        |
| Q9DBG9   | Tax1bp3            | Tax1-binding protein 3 (Tax interaction   | 0.2677762  | 0.21124  | 1.26764  | 8 | 0.240576 | 0.225       | 0.225       |
| Q9DBH5   | Lman2              | Vesicular integral-membrane protein VI    | -0.3809639 | 0.196607 | -1.9377  | 8 | 0.088661 | 0.355555556 | 0.355555556 |
| Q9DBJ1   | Pgam1              | Phosphoglycerate mutase 1 (EC 5.4.2.      | 0.1159119  | 0.120951 | 0.95834  | 8 | 0.365954 | 0.090322581 | 0.090322581 |

|        |                    |                                          |            |          |          |    |          |             |             |
|--------|--------------------|------------------------------------------|------------|----------|----------|----|----------|-------------|-------------|
| Q9DBL1 | Acadslb            | Short/branched chain specific acyl-Co    | 0.278443   | 0.221582 | 1.25661  | 8  | 0.244343 | 0.485714286 | 0.485714286 |
| Q9DBL7 | Coasy Ukr1         | Bifunctional coenzyme A synthase (Co     | 0.1544893  | 0.154067 | 1.00274  | 8  | 0.345348 | 0.35        | 0.35        |
| Q9DBM1 | Gpatch1 Gpatc1     | G patch domain-containing protein 1      | -1.1578051 | 0.774536 | -1.49484 | 2  | 0.273575 | 0.6         | 0           |
| Q9DBN5 | Lonp2              | Lon protease homolog 2, peroxisomal      | 0.143682   | 0.341696 | 0.4205   | 3  | 0.702427 | 0.533333333 | 0.033333333 |
| Q9DBP5 | Cmpk1 Cmk Cmpk1    | UMP-CMP kinase (EC 2.7.4.14) (Deoxy      | 0.2324698  | 0.152463 | 1.52476  | 8  | 0.165826 | 0.226666667 | 0.226666667 |
| Q9DBR0 | Akap8 Akap95       | A-kinase anchor protein 8 (AKAP-8) (A    | 0.1659634  | 0.117981 | 1.4067   | 8  | 0.197156 | 0.352941176 | 0.352941176 |
| Q9DBR1 | Xrn2 Dhml          | 5'-3' exoribonuclease 2 (EC 3.1.13.-) (  | -0.0905058 | 0.200856 | -0.4506  | 8  | 0.664239 | 0.38        | 0.38        |
| Q9DBR7 | Ppp1r12a Mypt1     | Protein phosphatase 1 regulatory subu    | 0.3213994  | 0.148139 | 2.16957  | 8  | 0.06186  | 0.51        | 0.51        |
| Q9DBS1 | Tmem43             | Transmembrane protein 43 (Protein LL     | -0.3798859 | 0.190694 | -1.99213 | 8  | 0.081504 | 0.411111111 | 0.411111111 |
| Q9DBS5 | Klc4 Kns18         | Kinesin light chain 4 (KLC 4) (Kinesin-l | 0.6587268  | 0.373943 | 1.76157  | 8  | 0.116169 | 0.36        | 0.36        |
| Q8CEC6 | Ppwd1              | Peptidylprolyl isomerase domain and V    | -0.7936938 | 0.154699 | -5.13058 | 8  | 0.000895 | 0.385714286 | 0.385714286 |
| Q9DBT5 | Ampd2              | AMP deaminase 2 (EC 3.5.4.6) (AMP de     | -0.2785703 | 0.577033 | -0.48276 | 1  | 0.713672 | 0.7         | 0           |
| Q9DBU6 | Rsrc1 Srrp53       | Serine/Arginine-related protein 53 (SR   | -0.198478  | 0.181359 | -1.09439 | 6  | 0.31576  | 0.45        | 0.25        |
| Q9DBW3 | Natd1 Gm16515 Gt   | Protein NATD1 (Gene trap locus protei    | -0.2379865 | 0.235843 | -1.00909 | 7  | 0.346534 | 0.475       | 0.375       |
| Q9DBX2 | Pdcl PhLP1         | Phosducin-like protein (PHLP)            | 0.3115953  | 0.301815 | 1.0324   | 8  | 0.332081 | 0.35        | 0.35        |
| Q9DBY0 | Foxp4              | Forkhead box protein P4 (Fork head-re    | -0.5262609 | 0.260295 | -2.02179 | 5  | 0.099144 | 0.6         | 0.3         |
| Q9DBY5 | Cbx6               | Chromobox protein homolog 6              | 0.0159194  | 0.482579 | 0.03299  | 7  | 0.974605 | 0.1         | 0           |
| Q9DBY8 | Nvl                | Nuclear valosin-containing protein-like  | 0.1941464  | 0.152728 | 1.27119  | 8  | 0.239373 | 0.342105263 | 0.342105263 |
| Q9DBZ5 | Eif3k Eif3s12      | Eukaryotic translation initiation factor | 0.0026053  | 0.196412 | 0.01326  | 8  | 0.989742 | 0.281818182 | 0.281818182 |
| Q9DC16 | Ergic1 Ergic32     | Endoplasmic reticulum-Golgi intermed     | -0.1475883 | 0.351783 | -0.41954 | 8  | 0.685858 | 0.408333333 | 0.408333333 |
| Q9DC23 | Dnajc10 Erdj5 Jpdi | DnaJ homolog subfamily C member 10       | 0.203863   | 0.186841 | 1.0911   | 8  | 0.306996 | 0.5         | 0.5         |
| Q9DC28 | Csnk1d Hckid       | Casein kinase I isoform delta (CKI-delt  | 0.2305111  | 0.250952 | 0.91854  | 6  | 0.39376  | 0.5         | 0.3         |
| Q9DC33 | Hmg20a Ibraf       | High mobility group protein 20A (HMG     | 0.0777192  | 0.214431 | 0.36244  | 8  | 0.726409 | 0.2         | 0.2         |
| Q9DC36 | Flot2              | Flotillin                                | -0.1890622 | 0.172748 | -1.09444 | 8  | 0.305615 | 0.366666667 | 0.366666667 |
| Q9DC40 | Telo2 Kiaa0683     | Telomere length regulation protein TEL   | -1.0277842 | 0.530982 | -1.93563 | 5  | 0.110689 | 0.6         | 0.3         |
| Q9DC48 | Cdc40 Prp17 Prpf1  | Pre-mRNA-processing factor 17 (Cell c    | -0.3448383 | 0.297022 | -1.16099 | 8  | 0.279116 | 0.45        | 0.45        |
| Q9DC50 | Crot Cot           | Peroxisomal carnitine O-octanoyltrans    | 0.4463927  | 0.240363 | 1.85716  | 8  | 0.100368 | 0.45        | 0.45        |
| Q9DC51 | Gnai3              | Guanine nucleotide-binding protein Gi    | -0.1019732 | 0.390685 | -0.26101 | 8  | 0.800677 | 0.19        | 0.19        |
| Q9DC61 | Pmpca Inpp5e       | Mitochondrial-processing peptidase su    | 0.6225007  | 0.330208 | 1.88518  | 8  | 0.096137 | 0.277777778 | 0.277777778 |
| Q9DC63 | Fbxo3 Fba Fbx3     | F-box only protein 3                     | #NAME?     | NA       | NA       | NA | NA       | NA          | NA          |
| Q9DC69 | Ndufa9             | NADH dehydrogenase [ubiquinone] 1        | 0.0234704  | 0.310047 | 0.0757   | 8  | 0.941517 | 0.423076923 | 0.423076923 |
| Q9DC70 | Ndufs7             | NADH dehydrogenase [ubiquinone] iro      | -0.6449038 | 1.315492 | -0.49024 | 8  | 0.637127 | 0.2         | 0.2         |
| Q9DC71 | Mrps15 Rpms15      | Small ribosomal subunit protein uS15     | 0.3572321  | 0.443453 | 0.80557  | 8  | 0.443774 | 0.525       | 0.525       |
| Q9DCA2 | Mrps11             | Small ribosomal subunit protein uS11     | 0.3753275  | 0.310036 | 1.21059  | 8  | 0.2606   | 0.4         | 0.4         |
| Q9DCA5 | Brix1 Brix Bxdc2   | Ribosome biogenesis protein BRX1 ho      | -0.2689901 | 0.3147   | -0.85475 | 8  | 0.41755  | 0.333333333 | 0.333333333 |
| Q9DCB1 | Hmgn3              | High mobility group nucleosome-bindin    | -0.121205  | 0.566649 | -0.2139  | 8  | 0.835978 | 0.5         | 0.5         |
| Q9DCC4 | Pycr3 Pycrl        | Pyrroline-5-carboxylate reductase 3 (P   | 0.0344181  | 0.172058 | 0.20004  | 8  | 0.846443 | 0.2         | 0.2         |
| Q9DCC5 | Cbx3               | Cbx3 protein (Chromobox 3)               | -0.0438483 | 0.072051 | -0.60857 | 8  | 0.559685 | 0.145454545 | 0.145454545 |

|        |                    |                                           |            |          |          |   |          |             |             |
|--------|--------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9DCC8 | Tomm20             | Mitochondrial import receptor subunit     | 0.0802517  | 0.385975 | 0.20792  | 6 | 0.84217  | 0.45        | 0.25        |
| Q9DCD0 | Pgd                | 6-phosphogluconate dehydrogenase, c       | 0.0096085  | 0.216349 | 0.04441  | 8 | 0.965665 | 0.157692308 | 0.157692308 |
| Q9DCD2 | Xab2 Syf1          | Pre-mRNA-splicing factor SYF1 (XPA-b      | -0.4475035 | 0.254847 | -1.75597 | 8 | 0.117164 | 0.32        | 0.32        |
| Q9DCD6 | Gabarap            | Gamma-aminobutyric acid receptor-as       | 0.1797425  | 0.414061 | 0.4341   | 7 | 0.677283 | 0.1         | 0           |
| Q9DCE5 | Pak1ip1            | p21-activated protein kinase-interactin   | -0.1071293 | 0.321169 | -0.33356 | 8 | 0.747286 | 0.369230769 | 0.369230769 |
| Q9DCG9 | Trmt112            | Multifunctional methyltransferase subu    | 0.3750024  | 0.232368 | 1.61383  | 8 | 0.145228 | 0.2875      | 0.2875      |
| Q9DCH2 | Pop7 Rpp20         | Ribonuclease P protein subunit p20 (F     | -0.0895391 | 0.228745 | -0.39144 | 2 | 0.733242 | 0.6         | 0           |
| Q9DCH4 | Eif3f Eif3s5       | Eukaryotic translation initiation factor  | 0.1884729  | 0.088364 | 2.13291  | 8 | 0.065496 | 0.205       | 0.205       |
| Q9DCH6 | Zfand6 Awp1 Za20d  | AN1-type zinc finger protein 6 (Associ    | -0.0345006 | 0.286845 | -0.12028 | 8 | 0.90723  | 0.44        | 0.44        |
| Q9DCI9 | Mrpl32 Heg1        | Large ribosomal subunit protein bL32r     | -0.443083  | 0.214125 | -2.06927 | 7 | 0.0773   | 0.566666667 | 0.466666667 |
| Q9DCJ1 | Mlst8 Gbl Lst8     | Target of rapamycin complex subunit L     | -0.0732202 | 0.171242 | -0.42758 | 8 | 0.680232 | 0.488888889 | 0.488888889 |
| Q9DCJ5 | Ndufa8             | NADH dehydrogenase [ubiquinone] 1 s       | 0.1413064  | 0.186174 | 0.759    | 8 | 0.469623 | 0.309090909 | 0.309090909 |
| Q9DCJ9 | Npl                | N-acetylneuraminate lyase (NALase) (E     | 0.0281766  | 0.225716 | 0.12483  | 4 | 0.906679 | 0.4         | 0           |
| Q9DCL8 | Ppp1r2             | Protein phosphatase inhibitor 2 (IPP-2    | 0.0029108  | 0.140497 | 0.02072  | 8 | 0.983978 | 0.271428571 | 0.271428571 |
| Q9DCL9 | Paics              | Bifunctional phosphoribosylaminoimid      | 0.0445542  | 0.111034 | 0.40127  | 8 | 0.69873  | 0.197777778 | 0.197777778 |
| Q9DCM0 | Ethe1 Hsco         | Persulfide dioxygenase ETHE1, mitoch      | 0.218039   | 0.264367 | 0.82476  | 8 | 0.43341  | 0.133333333 | 0.133333333 |
| Q9DCN2 | Cyb5r3 Dia1        | NADH-cytochrome b5 reductase 3 (B5        | 0.1819185  | 0.235178 | 0.77353  | 8 | 0.461449 | 0.330434783 | 0.330434783 |
| Q9DCP9 | Dazap2 Prtb        | DAZ-associated protein 2 (Deleted in a    | -0.5818353 | 0.545625 | -1.06637 | 3 | 0.36446  | 0.5         | 0           |
| Q9DCR2 | Ap3s1              | AP-3 complex subunit sigma-1 (AP-3 c      | 0.0529845  | 0.295018 | 0.1796   | 8 | 0.861934 | 0.4         | 0.4         |
| Q9DCS2 | Mettl26            | Methyltransferase-like 26                 | -0.037155  | 0.351567 | -0.10568 | 8 | 0.918435 | 0.616666667 | 0.616666667 |
| Q9DCS3 | Mecr Nrbf1         | Enoyl-[acyl-carrier-protein] reductase, i | -0.2367415 | 0.486312 | -0.48681 | 8 | 0.63945  | 0.53        | 0.53        |
| Q9DCS9 | Ndufb10            | NADH dehydrogenase [ubiquinone] 1 b       | 0.0625725  | 0.219331 | 0.28529  | 8 | 0.78267  | 0.2875      | 0.2875      |
| Q9DCT1 | Akr1e2 Akr1c2 Akr1 | 1,5-anhydro-D-fructose reductase (AF      | 0.0540845  | 0.282151 | 0.19169  | 8 | 0.852764 | 0.390909091 | 0.390909091 |
| Q9DCT2 | Ndufs3             | NADH dehydrogenase [ubiquinone] iro       | 0.0290914  | 0.151917 | 0.1915   | 8 | 0.852909 | 0.345454545 | 0.345454545 |
| Q9DCT6 | Bap18              | Chromatin complexes subunit BAP18         | 0.1437201  | 0.194912 | 0.73736  | 8 | 0.481968 | 0.35        | 0.35        |
| Q9DCT8 | Crip2 Crp2 Hlp     | Cysteine-rich protein 2 (CRP-2) (Heart    | 0.067228   | 0.067879 | 0.99041  | 8 | 0.350981 | 0.215384615 | 0.215384615 |
| Q9DCU6 | Mrpl4 MNCb-3848    | Large ribosomal subunit protein uL4m      | 0.0890915  | 0.270036 | 0.32992  | 7 | 0.751111 | 0.5         | 0.4         |
| Q9DCW4 | Etfb               | Electron transfer flavoprotein subunit    | -0.0079781 | 0.066899 | -0.11926 | 8 | 0.908013 | 0.241176471 | 0.241176471 |
| Q9DCW5 | Cox6a1             | Cytochrome c oxidase subunit (Cytocl      | 0.0250348  | 0.186339 | 0.13435  | 8 | 0.896444 | 0.228571429 | 0.228571429 |
| Q80V86 | Ints8              | Integrator complex subunit 8 (Int8)       | -0.8009427 | 0.215873 | -3.71025 | 4 | 0.020649 | 0.566666667 | 0.166666667 |
| Q9DCZ4 | Apoo Fam121b Mic2  | MICOS complex subunit Mic26 (Apolip       | 0.2001847  | 0.263413 | 0.75996  | 6 | 0.476066 | 0.625       | 0.425       |
| Q9DD02 | Hikeshi L7rn6      | Protein Hikeshi (Lethal gene on chrom     | -0.1098851 | 0.256824 | -0.42786 | 8 | 0.680037 | 0.366666667 | 0.366666667 |
| Q9DD18 | Dtd1 Hars2         | D-aminoacyl-tRNA deacylase 1 (DTD) (      | 0.1706271  | 0.469648 | 0.36331  | 8 | 0.725787 | 0           | 0           |
| Q9EP52 | Twsg1 Tsg          | Twisted gastrulation protein homolog      | -0.1018697 | 0.271538 | -0.37516 | 8 | 0.717293 | 0           | 0           |
| Q9EP69 | Sacm1l Kiaa0851 Ss | Phosphatidylinositol-3-phosphatase S      | 0.0983366  | 0.369436 | 0.26618  | 8 | 0.796832 | 0.366666667 | 0.366666667 |
| Q9EP71 | Rai14 Kiaa1334 Nor | Ankycorbin (Ankyrin repeat and coiled-    | -0.1672737 | 0.08808  | -1.8991  | 8 | 0.094098 | 0.544444444 | 0.544444444 |
| Q9EP72 | Emc7 Orf3          | Endoplasmic reticulum membrane pro        | 0.1936807  | 0.420525 | 0.46057  | 7 | 0.659074 | 0.5         | 0.4         |
| Q9EP82 | Wdr4               | tRNA (guanine-N(7)-)-methyltransfera      | 0.196647   | 0.190646 | 1.03148  | 8 | 0.332489 | 0.425       | 0.425       |

|          |                    |                                           |            |          |          |   |          |             |             |
|----------|--------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9EP97   | Senp3 Smt3ip Smt3  | Sentrin-specific protease 3 (EC 3.4.22    | 0.2446432  | 0.229266 | 1.06707  | 8 | 0.31708  | 0.2         | 0.2         |
| Q9EPC1   | Parva Actp MNCb-0: | Alpha-parvin (Actopaxin)                  | 0.2138808  | 0.274183 | 0.78007  | 8 | 0.457808 | 0.366666667 | 0.366666667 |
| Q9EPE9   | Atp13a1 Atp13a     | Endoplasmic reticulum transmembran        | 0.1468675  | 0.197432 | 0.74389  | 8 | 0.47822  | 0.575       | 0.575       |
| Q9EPJ9   | Arfgap1 Arf1gap    | ADP-ribosylation factor GTPase-activa     | -0.2717518 | 0.203365 | -1.33627 | 7 | 0.223262 | 0.3375      | 0.2375      |
| Q9EPK2   | Rp2 Rp2h           | Protein XRP2                              | 0.469855   | 0.366045 | 1.2836   | 3 | 0.289445 | 0.5         | 0           |
| Q9EPK7   | Xpo7 Kiaa0745 Ran  | Exportin-7 (Exp7) (Ran-binding protei     | -0.4195109 | 0.189731 | -2.21109 | 8 | 0.057983 | 0.341176471 | 0.341176471 |
| Q9EPL2   | Clstn1 Cs1 Cstn1 K | Calsyntenin-1 (Alcadein-alpha) (Alc-al    | 0.2096757  | 0.327073 | 0.64107  | 8 | 0.539405 | 0.48        | 0.48        |
| Q9EPL8   | Ipo7 Ranbp7        | Importin-7 (Imp7) (Ran-binding protei     | -0.0385773 | 0.264205 | -0.14601 | 8 | 0.887523 | 0.234146341 | 0.234146341 |
| Q9EPN1   | Nbea Lyst2         | Neurobeachin (Lysosomal-trafficking r     | -0.1376901 | 0.532198 | -0.25872 | 8 | 0.802384 | 0.538461538 | 0.538461538 |
| Q9EPQ8   | Tcf20 Spbp         | Transcription factor 20 (TCF-20) (Nucl    | -0.1409167 | 0.351001 | -0.40147 | 8 | 0.698585 | 0.523076923 | 0.523076923 |
| Q9EPU0   | Upf1 Rent1         | Regulator of nonsense transcripts 1 (E    | -0.0760225 | 0.134277 | -0.56616 | 8 | 0.58681  | 0.253448276 | 0.253448276 |
| Q6ZPV5   | Arid1b mKIAA1235   | MKIAA1235 protein                         | -0.828944  | 0.141093 | -5.87517 | 5 | 0.002028 | 0.4         | 0.1         |
| Q9EPV8   | Ubl5               | Ubiquitin-like protein 5                  | 0.4459162  | 0.310191 | 1.43755  | 8 | 0.1885   | 0.025       | 0.025       |
| Q9EQ20   | Aldh6a1            | Methylmalonate-semialdehyde/malona        | 0.2122208  | 0.20823  | 1.01917  | 8 | 0.337953 | 0.455555556 | 0.455555556 |
| Q9EQ28   | Pold3              | DNA polymerase delta subunit 3 (DNA       | -0.3074399 | 0.190325 | -1.61534 | 8 | 0.1449   | 0.515384615 | 0.515384615 |
| Q9EQ61   | Pes1 Pes           | Pescadillo homolog                        | -0.1178079 | 0.254757 | -0.46243 | 8 | 0.656089 | 0.415384615 | 0.415384615 |
| Q9EQ80   | Nif3l1             | NIF3-like protein 1                       | 0.2496884  | 0.126186 | 1.97874  | 8 | 0.083211 | 0.369230769 | 0.369230769 |
| Q9EQC5   | Scyl1              | N-terminal kinase-like protein (105 kD;   | -0.3704746 | 0.226389 | -1.63645 | 6 | 0.152861 | 0.633333333 | 0.433333333 |
| Q9EQC8   | Prcc               | Papillary Renal Cell carcinoma (Translo   | 0.2328017  | 0.15919  | 1.46241  | 8 | 0.181772 | 0.333333333 | 0.333333333 |
| Q9EQF6   | Dpysl5 Crmp5       | Dihydropyrimidinase-related protein 5     | 0.4033639  | 0.324178 | 1.24426  | 8 | 0.24862  | 0.210714286 | 0.210714286 |
| Q9EQG9   | Cert1 Cert Col4a3b | Ceramide transfer protein (CERT) (Col     | -0.3779251 | 0.233881 | -1.61589 | 5 | 0.167041 | 0.566666667 | 0.266666667 |
| Q9EQH3   | Vps35 Mem3         | Vacuolar protein sorting-associated pr    | -0.0052688 | 0.19506  | -0.02701 | 8 | 0.979113 | 0.29        | 0.29        |
| Q9EQI8   | Mrpl46             | Large ribosomal subunit protein mL46      | 0.5571563  | 0.316542 | 1.76014  | 8 | 0.116423 | 0.483333333 | 0.483333333 |
| Q9EQM6   | Dgcr8              | Microprocessor complex subunit DGC        | 0.0413198  | 0.26878  | 0.15373  | 7 | 0.88216  | 0.5         | 0.4         |
| Q9EQQ0   | Suv39h2            | Histone-lysine N-methyltransferase SU     | 0.2399983  | 0.433068 | 0.55418  | 5 | 0.603327 | 0.55        | 0.25        |
| Q9EQQ2   | Yipf5 Yip1a        | Protein YIPF5 (YIP1 family member 5) (    | -0.4152747 | 0.355178 | -1.1692  | 4 | 0.307244 | 0.4         | 0           |
| O70293-2 | Grk6 Gprk6         | G protein-coupled receptor kinase 6 (E    | -0.8408604 | 0.218435 | -3.84947 | 3 | 0.030951 | 0.5         | 0           |
| Q9EQS3   | Mycbp Amy1         | c-Myc-binding protein (Associate of My    | 0.3893106  | 0.359247 | 1.08368  | 8 | 0.310081 | 0.433333333 | 0.433333333 |
| Q9EQU5-2 | Set                | Protein SET (Phosphatase 2A inhibitor     | 0.3332322  | 0.334054 | 0.99754  | 8 | 0.347715 | 0.363636364 | 0.363636364 |
| Q9EQU5   | Set                | Protein SET (Phosphatase 2A inhibitor     | 0.3954623  | 0.433693 | 0.91185  | 8 | 0.3885   | 0.242857143 | 0.242857143 |
| Q9EQX4   | Aif1l Iba2         | Allograft inflammatory factor 1-like (Ioi | -0.2167343 | 0.306493 | -0.70714 | 7 | 0.502334 | 0.233333333 | 0.133333333 |
| Q9ER00   | Stx12              | Syntaxin-12                               | 0.7002883  | 0.566292 | 1.23662  | 7 | 0.256106 | 0.45        | 0.35        |
| Q9ER67   | Maged2             | MAGE family member D2 (Maged2 prot        | 0.1560863  | 0.278898 | 0.55965  | 8 | 0.591036 | 0.405555556 | 0.405555556 |
| Q9ER69   | Wtap               | Pre-mRNA-splicing regulator WTAP (Fei     | 0.2693105  | 0.18455  | 1.45928  | 8 | 0.182608 | 0.288888889 | 0.288888889 |
| Q9ER72   | Cars1 Cars         | Cysteine--tRNA ligase, cytoplasmic (EC    | -0.0602768 | 0.194833 | -0.30938 | 8 | 0.764939 | 0.404761905 | 0.404761905 |
| Q9ER73   | Elp4 Paxneb        | Elongator complex protein 4 (PAX6 ne      | 0.5485486  | 0.636494 | 0.86183  | 8 | 0.413867 | 0.52        | 0.52        |
| Q9ER74   | Sal1 Sal3          | Sal-like protein 1 (Zinc finger protein S | -0.6610838 | 0.412382 | -1.60308 | 8 | 0.147584 | 0.514285714 | 0.514285714 |
| Q9ER88   | Dap3 Mrps29        | Small ribosomal subunit protein mS29      | 0.0953799  | 0.215636 | 0.44232  | 8 | 0.669972 | 0.3         | 0.3         |

|          |                     |                                            |            |          |          |   |          |             |             |
|----------|---------------------|--------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9ERA6   | Tfip11 Stip Tip39   | Tuftelin-interacting protein 11 (Septin    | -0.0229772 | 0.324596 | -0.07079 | 8 | 0.945305 | 0.555555556 | 0.555555556 |
| Q9ERB0   | Snap29              | Synaptosomal-associated protein 29 (       | -0.0502106 | 0.209277 | -0.23992 | 8 | 0.816422 | 0.35        | 0.35        |
| Q9ERD6   | Ralgs2              | Ras-specific guanine nucleotide-releasi    | -0.3105466 | 0.552971 | -0.5616  | 3 | 0.613613 | 0.7         | 0.2         |
| Q9ERD7   | Tubb3               | Tubulin beta-3 chain                       | 0.3333196  | 0.238578 | 1.39711  | 8 | 0.199914 | 0.263333333 | 0.263333333 |
| Q9ERE7   | Mesd Mesdc2         | LRP chaperone MESD (LDLR chaperone         | 0.5100942  | 0.388984 | 1.31135  | 8 | 0.226123 | 0.371428571 | 0.371428571 |
| Q9ERF3   | Skic8 Wdr61         | Superkiller complex protein 8 (Ski8) (M    | 0.1982905  | 0.264553 | 0.74953  | 8 | 0.474999 | 0.281818182 | 0.281818182 |
| Q9ERG0   | Lima1 D15Ertd366e   | LIM domain and actin-binding protein       | 0.0541602  | 0.177002 | 0.30599  | 8 | 0.767426 | 0.418181818 | 0.418181818 |
| Q9ERH4   | Nusap1              | Nucleolar and spindle-associated prot      | -0.5646177 | 0.352057 | -1.60377 | 8 | 0.147433 | 0.375       | 0.375       |
| Q9ERI5   | Jmjd6 Kiaa0585 Ptd  | Bifunctional arginine demethylase and      | -0.0804189 | 0.328702 | -0.24466 | 8 | 0.812881 | 0.516666667 | 0.516666667 |
| Q9ERK4   | Cse1l Xpo2          | Exportin-2 (Exp2) (Chromosome segre        | -0.2438834 | 0.207597 | -1.17479 | 8 | 0.273859 | 0.273770492 | 0.273770492 |
| Q9ERN0   | Scamp2              | Secretory carrier-associated membran       | -0.1121413 | 0.315306 | -0.35566 | 7 | 0.732573 | 0.4         | 0.3         |
| Q9ERR7   | Selenof Sep15       | Selenoprotein F (15 kDa selenoprotein      | 0.1915697  | 0.401034 | 0.47769  | 8 | 0.64565  | 0.46        | 0.46        |
| Q9ERS2   | Ndufa13 Grim19      | NADH dehydrogenase [ubiquinone] 1          | 0.529334   | 0.589429 | 0.89805  | 8 | 0.395384 | 0.466666667 | 0.466666667 |
| Q9ERT9   | Ppp1r1a             | Protein phosphatase 1 regulatory sub       | -0.1568419 | 0.320434 | -0.48947 | 8 | 0.637649 | 0.433333333 | 0.433333333 |
| Q9ERU3   | Znf22 Krox25 Krox2  | Zinc finger protein 22 (Zinc finger prot   | 0.4732047  | 0.413119 | 1.14544  | 8 | 0.285133 | 0.246153846 | 0.246153846 |
| Q9ERU9   | Ranbp2              | E3 SUMO-protein ligase RanBP2 (EC 2        | -0.1460684 | 0.167703 | -0.87099 | 8 | 0.409132 | 0.353968254 | 0.353968254 |
| Q9ES00   | Ube4b Ufd2 Ufd2a    | Ubiquitin conjugation factor E4 B (EC      | 0.1351807  | 0.18467  | 0.73201  | 8 | 0.485051 | 0.3375      | 0.3375      |
| Q9ES28   | Arhgef7 Kiaa0142 P  | Rho guanine nucleotide exchange fact       | 0.1766995  | 0.267882 | 0.65962  | 8 | 0.528028 | 0.340740741 | 0.340740741 |
| Q9ES56   | Trappc4 Sbdn        | Trafficking protein particle complex su    | -0.3718805 | 0.249479 | -1.49063 | 7 | 0.17968  | 0.56        | 0.46        |
| Q9ES70   | Nek6                | Serine/threonine-protein kinase Nek6 (     | 0.2472529  | 0.240541 | 1.0279   | 7 | 0.338198 | 0.54        | 0.44        |
| Q9ES94   | Ctsz                | cathepsin X (EC 3.4.18.1)                  | 0.3966636  | 0.309948 | 1.27977  | 8 | 0.236488 | 0.388888889 | 0.388888889 |
| Q9ES97-3 | Rtn3                | Reticulon-3                                | 0.0065995  | 0.086486 | 0.07631  | 8 | 0.941049 | 0.1         | 0.1         |
| Q9ESC8   | Aff4 Alf4           | AF4/FMR2 family member 4                   | 0.6546149  | 1.111296 | 0.58906  | 6 | 0.577313 | 0.64        | 0.44        |
| Q9ESJ0   | Xpo4 Kiaa1721       | Exportin-4 (Exp4)                          | 0.0464336  | 0.375821 | 0.12355  | 7 | 0.905142 | 0.575       | 0.475       |
| Q9ESN6   | Trim2 Kiaa0517 Nar  | Tripartite motif-containing protein 2 (E   | 0.1427709  | 0.283904 | 0.50289  | 8 | 0.628595 | 0.463157895 | 0.463157895 |
| Q9ESN9   | Mapk8ip3 Jip3 Jsap1 | C-Jun-amino-terminal kinase-interactir     | 0.161062   | 0.205477 | 0.78384  | 8 | 0.45571  | 0.42        | 0.42        |
| Q9ESP1   | Sdf2l1              | Stromal cell-derived factor 2-like prote   | 0.5439731  | 0.341593 | 1.59246  | 8 | 0.149947 | 0.428571429 | 0.428571429 |
| Q9EST3   | Eif4enif1 Clast4    | Eukaryotic translation initiation factor   | 0.6783881  | 0.372081 | 1.82323  | 8 | 0.105728 | 0.566666667 | 0.566666667 |
| Q9EST4   | Psmg2 Clast3 Tnfsf1 | Proteasome assembly chaperone 2 (CI        | -0.0387834 | 0.604267 | -0.06418 | 8 | 0.9504   | 0.42        | 0.42        |
| Q9EST5   | Anp32b Pal31        | Acidic leucine-rich nuclear phosphopr      | 0.3973424  | 0.216099 | 1.83871  | 8 | 0.10325  | 0.272727273 | 0.272727273 |
| Q9ESU6   | Brd4 Mcap           | Bromodomain-containing protein 4 (M        | 0.1327371  | 0.212835 | 0.62366  | 8 | 0.550214 | 0.45        | 0.45        |
| Q8R0F5   | RbmX2               | RNA-binding motif protein, X-linked 2      | -0.8478957 | 0.331417 | -2.5584  | 7 | 0.03764  | 0.5         | 0.4         |
| Q9ESW4   | Agk Mulk            | Acylglycerol kinase, mitochondrial (EC     | 0.1204309  | 0.259657 | 0.46381  | 8 | 0.655144 | 0.45        | 0.45        |
| Q9ESW8   | Pgpep1 Pgpi         | Pyroglutamyl-peptidase 1 (EC 3.4.19.3      | -0.1012414 | 0.339068 | -0.29859 | 7 | 0.773924 | 0.58        | 0.48        |
| Q9ESX5   | Dkc1                | H/ACA ribonucleoprotein complex sub        | -0.0611814 | 0.159232 | -0.38423 | 8 | 0.710821 | 0.247619048 | 0.247619048 |
| Q9ESZ8   | Gtf2i Bap135 Diws1  | General transcription factor II-I (GTFII-I | -0.0202191 | 0.156786 | -0.12896 | 8 | 0.900572 | 0.286363636 | 0.286363636 |
| Q9ET26   | Rnf114 Zfp228 Zfp2  | E3 ubiquitin-protein ligase RNF114 (E      | 0.2747605  | 0.271393 | 1.01241  | 8 | 0.34098  | 0.276923077 | 0.276923077 |
| Q9ET30   | Tm9sf3 Smbp         | Transmembrane 9 superfamily member         | -0.2933449 | 0.275198 | -1.06594 | 8 | 0.317561 | 0.3         | 0.3         |

|        |                     |                                          |            |          |          |   |          |             |             |
|--------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9ET42 | Tacc3 Eric1         | ERIC1                                    | 0.0972123  | 0.369035 | 0.26342  | 8 | 0.798882 | 0.575       | 0.575       |
| Q9ET54 | Palld Kiaa0992      | Palladin                                 | 0.1575788  | 0.402114 | 0.39188  | 8 | 0.705382 | 0.425       | 0.425       |
| Q9JHC9 | Elf2 Nerf           | ETS-related transcription factor Elf-2 ( | -0.0438326 | 0.203855 | -0.21502 | 8 | 0.835133 | 0.46        | 0.46        |
| Q9JHE7 | Tssc4 MNCb-3063     | U5 small nuclear ribonucleoprotein TS    | -0.1944112 | 0.267217 | -0.72754 | 8 | 0.487639 | 0.36        | 0.36        |
| Q9JHI2 | Adat1               | tRNA-specific adenosine deaminase 1 (    | -0.161303  | 0.268606 | -0.60052 | 1 | 0.655715 | 0.7         | 0           |
| Q9JHI5 | Ivd                 | Isovaleryl-CoA dehydrogenase, mitoch     | 0.0078859  | 0.243154 | 0.03243  | 8 | 0.974922 | 0.336363636 | 0.336363636 |
| Q9JHI7 | Exosc9 Pmscl1       | Exosome complex component RRP45          | 0.0889884  | 0.156362 | 0.56912  | 8 | 0.584896 | 0.266666667 | 0.266666667 |
| Q9CQF0 | Mrpl11              | Large ribosomal subunit protein uL11r    | -0.8616825 | 0.319372 | -2.69805 | 7 | 0.030725 | 0.475       | 0.375       |
| Q9JHK4 | Rabggta             | Geranylgeranyl transferase type-2 subu   | -0.6353195 | 0.289049 | -2.19796 | 7 | 0.063923 | 0.56        | 0.46        |
| Q5DTY5 | Pdp2 mKIAA1348      | MKIAA1348 protein                        | -0.8817015 | 0.257381 | -3.42567 | 3 | 0.04167  | 0.5         | 0           |
| Q9JHQ5 | Lztfl1              | Leucine zipper transcription factor-like | 0.583892   | 0.30111  | 1.93913  | 8 | 0.088464 | 0.375       | 0.375       |
| Q9JHS3 | Lamtor2 Mapbpip R   | Ragulator complex protein LAMTOR2 (E     | -0.1251211 | 0.35286  | -0.35459 | 8 | 0.732061 | 0.45        | 0.45        |
| Q9JHS4 | Clpx                | ATP-dependent Clp protease ATP-bind      | -0.1645184 | 0.221337 | -0.7433  | 8 | 0.478561 | 0.433333333 | 0.433333333 |
| Q9JHS9 | Cwc15 Ed1           | Spliceosome-associated protein CWC1      | -0.2281652 | 0.203895 | -1.11903 | 8 | 0.295597 | 0.125       | 0.125       |
| Q9JHU4 | Dync1h1 Dhc1 Dnc    | Cytoplasmic dynein 1 heavy chain 1 (C    | -0.1215841 | 0.190392 | -0.6386  | 8 | 0.540931 | 0.303404255 | 0.303404255 |
| Q9JHU9 | Isyna1 Ino1         | Inositol-3-phosphate synthase 1 (IPS :   | 0.2786687  | 0.193292 | 1.4417   | 8 | 0.187363 | 0.317647059 | 0.317647059 |
| Q9JHW2 | Nit2 D16Ertd502e    | Omega-amidase NIT2 (EC 3.5.1.3) (Niti    | -0.0205801 | 0.169803 | -0.1212  | 8 | 0.906522 | 0.375       | 0.375       |
| Q9JHW4 | Eefsec Selb         | Selenocysteine-specific elongation fact  | 0.0588798  | 0.254785 | 0.2311   | 8 | 0.823041 | 0.385714286 | 0.385714286 |
| Q9JI10 | Stk3 Mess1 Mst2     | Serine/threonine-protein kinase 3 (EC    | -0.0129977 | 0.115724 | -0.11232 | 2 | 0.920829 | 0.6         | 0           |
| Q9JI11 | Stk4 Mst1           | Serine/threonine-protein kinase 4 (EC    | 0.728563   | 0.508065 | 1.434    | 8 | 0.18948  | 0.5         | 0.5         |
| Q9JI13 | Utp3 Crl1 Crlz1 Sas | Something about silencing protein 10     | -0.0729282 | 0.344055 | -0.21197 | 8 | 0.837434 | 0.45        | 0.45        |
| Q9JI18 | Lrp1b Lrpdit        | Low-density lipoprotein receptor-relate  | 0.7583633  | 1.781069 | 0.42579  | 2 | 0.711704 | 0.7         | 0.1         |
| Q9JI19 | Fibp                | Acidic fibroblast growth factor intracel | 0.1491423  | 0.306401 | 0.48675  | 5 | 0.647019 | 0.6         | 0.3         |
| Q9JI44 | Dmap1 Mmtr          | DNA methyltransferase 1-associated p     | -0.1970852 | 0.238665 | -0.82578 | 8 | 0.432861 | 0.44        | 0.44        |
| Q9JI46 | Nudt3 Dipp Dipp1    | Diphosphoinositol polyphosphate ph       | -0.2257724 | 0.187026 | -1.20717 | 6 | 0.272793 | 0.2         | 0           |
| Q9JI95 | Hspe1-rs1 Cpn10-r   | CPN10-like protein (Heat shock protei    | 0.5122309  | 0.277265 | 1.84744  | 8 | 0.101876 | 0.3         | 0.3         |
| Q9JIB0 | Rangrf Mog1 Rangnr  | Ran guanine nucleotide release factor (  | 0.8756382  | 0.393721 | 2.224    | 7 | 0.061513 | 0.1         | 0           |
| Q9JIF7 | Copb1 Copb          | Coatomer subunit beta (Beta-coat pro     | -0.0681792 | 0.164543 | -0.41436 | 8 | 0.689501 | 0.275609756 | 0.275609756 |
| Q9JIG7 | Ccdc22 DXImx40e     | Coiled-coil domain-containing protein    | -0.1041185 | 0.163922 | -0.63517 | 8 | 0.543052 | 0.42        | 0.42        |
| Q9JIG8 | Praf2 DXImx39e      | PRA1 family protein 2                    | 0.0676093  | 0.599009 | 0.11287  | 4 | 0.915572 | 0.7         | 0.3         |
| Q9JIH2 | Nup50 Npap60        | Nuclear pore complex protein Nup50 (     | 0.0350952  | 0.205748 | 0.17057  | 8 | 0.868794 | 0.312       | 0.312       |
| Q9JII5 | Dazap1              | DAZ-associated protein 1 (Deleted in a   | 0.0467822  | 0.171834 | 0.27225  | 8 | 0.792323 | 0.333333333 | 0.333333333 |
| Q9JII6 | Akr1a1 Akr1a4       | Aldo-keto reductase family 1 member A    | 0.3866826  | 0.215107 | 1.79763  | 8 | 0.10995  | 0.314285714 | 0.314285714 |
| Q9JIK5 | Ddx21               | Nucleolar RNA helicase 2 (EC 3.6.4.13)   | 0.0026234  | 0.422766 | 0.00621  | 8 | 0.995201 | 0           | 0           |
| O88207 | Col5a1              | Collagen alpha-1(V) chain                | -0.9158072 | 0.1995   | -4.59052 | 3 | 0.01942  | 0.5         | 0           |
| Q9JIM1 | Slc29a1 Ent1        | Equilibrative nucleoside transporter 1   | -0.1752025 | 0.293538 | -0.59686 | 5 | 0.576595 | 0.45        | 0.15        |
| Q9JIP4 | Panx1               | Pannexin-1 [Cleaved into: Caspase-act    | 0.8717556  | 0.60647  | 1.43743  | 8 | 0.188535 | 0.325       | 0.325       |
| Q9JIP6 | Fzd2 Fzd10          | Frizzled-2 (Fz-2) (mFz2) (Frizzled-10) ( | -0.2332693 | 0.599838 | -0.38889 | 2 | 0.734857 | 0.7         | 0.1         |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9JIQ3   | Diablo Smac         | Diablo IAP-binding mitochondrial prot    | 0.3263471  | 0.253207 | 1.28885  | 5 | 0.253856 | 0.3         | 0           |
| Q9JIX0   | Eny2                | Transcription and mRNA export factor     | 0.8766443  | 0.715472 | 1.22527  | 8 | 0.255322 | 0.375       | 0.375       |
| Q9JIX8-4 | Acin1 Acinus        | Apoptotic chromatin condensation inc     | 0.2875765  | 0.140156 | 2.05183  | 8 | 0.074297 | 0.340350877 | 0.340350877 |
| Q9JIY2   | Cbl11 Hakai         | E3 ubiquitin-protein ligase Hakai (EC 2  | -0.3373145 | 0.294992 | -1.14347 | 7 | 0.290437 | 0.533333333 | 0.433333333 |
| Q9JIY5   | Htra2 Omi Prss25    | Serine protease HTRA2, mitochondrial     | -0.1564101 | 0.210446 | -0.74323 | 8 | 0.478597 | 0.316666667 | 0.316666667 |
| Q9ESV0   | Ddx24               | ATP-dependent RNA helicase DDX24 (I      | -0.9495109 | 0.192648 | -4.92874 | 5 | 0.004364 | 0.566666667 | 0.266666667 |
| Q9JJ66   | Cdc20               | Cell division cycle protein 20 homolog   | 0.113582   | 0.369109 | 0.30772  | 8 | 0.766155 | 0.4         | 0.4         |
| Q9JJ78   | Pbk Topk            | Lymphokine-activated killer T-cell-origi | 0.1326862  | 0.154153 | 0.86075  | 8 | 0.414429 | 0.375       | 0.375       |
| Q9JJ89   | Ccdc86 Cyclon D19   | Coiled-coil domain-containing protein    | 0.0273711  | 0.139254 | 0.19655  | 5 | 0.851915 | 0.45        | 0.15        |
| Q9JJ94   | Ssna1 MNCb-2711     | Microtubule nucleation factor SSNA1 (    | -0.1116415 | 0.384542 | -0.29032 | 8 | 0.778952 | 0.35        | 0.35        |
| Q9JJA4   | Wdr12 MNCb-5414     | Ribosome biogenesis protein WDR12 (      | -0.0681926 | 0.212145 | -0.32144 | 8 | 0.756112 | 0.330769231 | 0.330769231 |
| Q9JJA7   | Ccn12 Ania6b MNCb   | Cyclin-L2 (Cyclin Ania-6b) (Paneth cell  | 0.2931226  | 0.393604 | 0.74471  | 3 | 0.510476 | 0.5         | 0           |
| Q5SVR0   | Tbc1d9b Kiaa0676    | TBC1 domain family member 9B             | -0.9581916 | 0.000282 | -3401.21 | 1 | 0.000187 | 0.7         | 0           |
| Q9JJD0   | Thap11 MNCb-2032    | THAP domain-containing protein 11 (F     | -0.3909259 | 0.327809 | -1.19254 | 8 | 0.267218 | 0.35        | 0.35        |
| Q9JJF3   | Riox1 Mapjd No66    | Ribosomal oxygenase 1 (Bifunctional b    | -0.0452796 | 0.35292  | -0.1283  | 6 | 0.902104 | 0.566666667 | 0.366666667 |
| Q9JJJ8   | Rpl38               | Large ribosomal subunit protein eL38 (   | 0.1148786  | 0.358275 | 0.32064  | 8 | 0.756696 | 0.122222222 | 0.122222222 |
| Q9JJK2   | Lanc12 Tasp         | LanC-like protein 2 (Testis-specific adr | 0.1913739  | 0.216294 | 0.88479  | 8 | 0.40208  | 0.394444444 | 0.394444444 |
| Q9JJL8   | Sars2 Sarsm         | Serine--tRNA ligase, mitochondrial (EC   | 0.1363113  | 0.134897 | 1.01049  | 8 | 0.341845 | 0.475       | 0.475       |
| Q9JJN6   | Ctnnbip1 Catnbip1   | Beta-catenin-interacting protein 1 (Inh  | -0.2547037 | 1.116347 | -0.22816 | 3 | 0.83419  | 0.5         | 0           |
| Q9JJT0   | Rcl1 Rnac           | RNA 3'-terminal phosphate cyclase-like   | 1.0425656  | 0.089497 | 11.6492  | 1 | 0.054516 | 0.7         | 0           |
| Q9JJT9   | Phax Rnuxa          | Phosphorylated adapter RNA export pr     | -0.0441638 | 0.203853 | -0.21665 | 8 | 0.833907 | 0.3         | 0.3         |
| Q9JJU8   | Sh3bgrl             | Adapter Sh3bgrl (SH3 domain-binding      | 0.1621983  | 0.155673 | 1.04192  | 8 | 0.32791  | 0.2625      | 0.2625      |
| Q9JJV2   | Pfn2                | Profilin-2 (Profilin II)                 | 0.4165231  | 0.338363 | 1.23099  | 8 | 0.253286 | 0.2         | 0.2         |
| Q9JJX7   | Tdp2 Ttrap          | Tyrosyl-DNA phosphodiesterase 2 (Tyr     | -0.3144898 | 0.454588 | -0.69181 | 8 | 0.508632 | 0.475       | 0.475       |
| Q9JJY4   | Ddx20 Dp103 Gemi    | Probable ATP-dependent RNA helicase      | -0.2687343 | 0.21298  | -1.26178 | 8 | 0.242571 | 0.333333333 | 0.333333333 |
| Q9JJZ4   | Ube2j1 Ncube1       | Ubiquitin-conjugating enzyme E2 J1 (E    | -0.7256631 | 1.048957 | -0.6918  | 2 | 0.560584 | 0.6         | 0           |
| Q9JJZ6   | Klf13 Bteb3 Fklf2   | Krueppel-like factor 13 (Basic transcrip | -0.6240699 | 0.299336 | -2.08485 | 1 | 0.28472  | 0.7         | 0           |
| Q9JK23   | Psmg1 Dscr2         | Proteasome assembly chaperone 1 (Dc      | 0.1939567  | 0.285656 | 0.67899  | 8 | 0.516305 | 0.236363636 | 0.236363636 |
| Q9JK38   | Gnpnat1 Gna1        | Glucosamine 6-phosphate N-acetyltra      | -0.2775226 | 0.295744 | -0.93839 | 1 | 0.520229 | 0.7         | 0           |
| Q9JK48   | Sh3glb1 Kiaa0491    | Endophilin-B1 (SH3 domain-containin      | 0.347823   | 0.212721 | 1.63511  | 8 | 0.140664 | 0.3375      | 0.3375      |
| Q9JK81   | Myg1                | MYG1 exonuclease (EC 3.1.-.-) (Protein   | 0.1080621  | 0.368537 | 0.29322  | 8 | 0.776817 | 0.308333333 | 0.308333333 |
| Q9JK91   | Mlh1                | DNA mismatch repair protein Mlh1 (Mu     | 0.4292279  | 0.685865 | 0.62582  | 8 | 0.548867 | 0.583333333 | 0.583333333 |
| Q9JKB1   | Uchl3               | Ubiquitin carboxyl-terminal hydrolase    | 0.3161608  | 0.148766 | 2.12522  | 8 | 0.066285 | 0.286363636 | 0.286363636 |
| Q9JKB3   | Ybx3 Csda Msy4      | Y-box-binding protein 3 (Cold shock d    | 0.3095118  | 0.736462 | 0.42027  | 3 | 0.702576 | 0.5         | 0           |
| Q9JKC6   | Cend1 Bm88          | Cell cycle exit and neuronal differentia | 1.4386626  | 0.82226  | 1.74964  | 8 | 0.118297 | 0.4         | 0.4         |
| Q9JKC8   | Ap3m1               | AP-3 complex subunit mu-1 (AP-3 ada      | 0.1060636  | 0.131839 | 0.80449  | 8 | 0.444361 | 0.433333333 | 0.433333333 |
| Q9JKF1   | Iqgap1              | Ras GTPase-activating-like protein IQG   | 0.259343   | 0.249892 | 1.03782  | 8 | 0.329702 | 0.52        | 0.52        |
| Q9JKF6   | Nectin1 Hvec Prr1 P | Nectin-1 (Herpes virus entry mediator    | -0.2040236 | 0.348561 | -0.58533 | 8 | 0.57446  | 0.36        | 0.36        |

|          |                     |                                           |            |          |          |   |          |             |             |
|----------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9JKF7   | Mrpl39              | Large ribosomal subunit protein mL39      | -0.2351542 | 0.252622 | -0.93086 | 8 | 0.379162 | 0.38        | 0.38        |
| Q9JKK1   | Stx6                | Syntaxin-6                                | 0.1984059  | 0.247232 | 0.80251  | 4 | 0.46723  | 0.55        | 0.15        |
| D4AFX7   | Dnajc13 RME-8       | DnaJ heat shock protein family (Hsp40     | -0.9666221 | 0.30961  | -3.12206 | 4 | 0.035456 | 0.55        | 0.15        |
| Q9JKN1   | Slc30a7 Znt7 Znt12  | Zinc transporter 7 (Solute carrier family | -0.1364131 | 0.294754 | -0.4628  | 4 | 0.667563 | 0.4         | 0           |
| Q9JKN6   | Nova1               | RNA-binding protein Nova-1 (Neuro-onc     | 1.0351819  | 0.465807 | 2.22234  | 7 | 0.061664 | 0.488888889 | 0.388888889 |
| Q9JKP7   | Pole3               | DNA polymerase epsilon subunit 3 (DNA     | 0.2151523  | 0.308918 | 0.69647  | 8 | 0.505863 | 0.375       | 0.375       |
| Q9JKP8   | Chrac1              | Chromatin accessibility complex protei    | -0.4930501 | 0.248161 | -1.98682 | 4 | 0.117879 | 0.65        | 0.25        |
| Q9JKR6   | Hyou1 Grp170 Hsp    | Hypoxia up-regulated protein 1 (GRP-1     | 0.0768445  | 0.126496 | 0.60749  | 8 | 0.560373 | 0.270588235 | 0.270588235 |
| Q9JKV1   | Adrm1 Gp110         | Proteasomal ubiquitin receptor ADRM1      | 0.3233389  | 0.253803 | 1.27398  | 8 | 0.238434 | 0.2875      | 0.2875      |
| Q9JKW0   | Arl6ip1 Arl6ip      | ADP-ribosylation factor-like protein 6-   | -1.2063427 | 1.301311 | -0.92702 | 2 | 0.45178  | 0.6         | 0           |
| Q9JKX4   | Aatf Che1 Trb       | Protein AATF (Apoptosis-antagonizing      | -0.0453648 | 0.38904  | -0.11661 | 8 | 0.910046 | 0.471428571 | 0.471428571 |
| Q9JKX6   | Nudt5               | ADP-sugar pyrophosphatase (EC 3.6.1       | 0.2535358  | 0.217811 | 1.16402  | 8 | 0.277954 | 0.211111111 | 0.211111111 |
| Q9JKY0   | Cnot9 Rcd1 Rqcd1    | CCR4-NOT transcription complex subu       | 0.0807917  | 0.234311 | 0.34481  | 8 | 0.739131 | 0.257142857 | 0.257142857 |
| Q9JKY5   | Hip1r               | Huntingtin-interacting protein 1-relate   | 0.1987098  | 0.213539 | 0.93055  | 7 | 0.383055 | 0.45        | 0.35        |
| Q9JL04   | Fmn2                | Formin-2                                  | 0.6614699  | 0.443518 | 1.49142  | 3 | 0.232655 | 0.5         | 0           |
| Q9JL19   | Ncoa6 Aib3 Prip Raf | Nuclear receptor coactivator 6 (Activat   | 0.2868037  | 0.545222 | 0.52603  | 4 | 0.626682 | 0.6         | 0.2         |
| Q9JL35   | Hmgn5 Garp45 Nsb    | High mobility group nucleosome-bindin     | -0.0055669 | 0.407198 | -0.01367 | 8 | 0.989427 | 0.27826087  | 0.27826087  |
| Q9JL62   | Gltp                | Glycolipid transfer protein (GLTP)        | 0.00876    | 0.150408 | 0.05824  | 6 | 0.955447 | 0.3         | 0.1         |
| Q9JLB0-2 | Pals2 Dlg4 Mpp6     | Protein PALS2 (Dlg4 protein) (MAGUI       | 0.015182   | 0.278315 | 0.05455  | 7 | 0.958021 | 0.5625      | 0.4625      |
| Q9JLB2   | Pals1 Mpp5          | Protein PALS1 (MAGUK p55 subfamily        | 1.0277979  | 0.593646 | 1.73133  | 8 | 0.121636 | 0.45        | 0.45        |
| Q9JLI6   | Scly Scl            | Selenocysteine lyase (mSCL) (EC 4.4.1     | 0.4638393  | 0.496381 | 0.93444  | 8 | 0.377419 | 0.6         | 0.6         |
| Q9JLI8   | Sart3 Kiaa0156      | Squamous cell carcinoma antigen reco      | -0.0032949 | 0.103933 | -0.0317  | 8 | 0.975486 | 0.384       | 0.384       |
| Q9JLJ2   | Aldh9a1             | 4-trimethylaminobutyraldehyde dehyd       | 2.0673373  | 1.591283 | 1.29916  | 3 | 0.284719 | 0.5         | 0           |
| Q9JLJ4   | Elovl2 Ssc2         | Very long chain fatty acid elongase 2 (E  | 0.6272372  | 1.163233 | 0.53922  | 3 | 0.627183 | 0.6         | 0.1         |
| Q9JLM8   | Dclk1 Dcamk1 Dclk   | Serine/threonine-protein kinase DCLK1     | 0.2593502  | 0.18386  | 1.41059  | 8 | 0.196046 | 0.295833333 | 0.295833333 |
| Q9JLN9   | Mtor Frap Frap1     | Serine/threonine-protein kinase mTOR      | -0.79628   | 0.344242 | -2.31314 | 7 | 0.053936 | 0.5         | 0.4         |
| Q9JLQ0   | Cd2ap Mets1         | CD2-associated protein (Mesenchyme-       | -0.1492607 | 0.571893 | -0.26099 | 7 | 0.801609 | 0.1         | 0           |
| Q9JLT4   | Txnrd2 Trxr2        | Thioredoxin reductase 2, mitochondria     | 0.4480611  | 0.229946 | 1.94855  | 8 | 0.087187 | 0.44        | 0.44        |
| Q9JLV1   | Bag3 Bis MNCB-224   | BAG family molecular chaperone regul      | -0.1947751 | 0.103648 | -1.87919 | 1 | 0.311326 | 0.7         | 0           |
| Q9JLV5   | Cul3                | Cullin-3 (CUL-3)                          | 0.0269368  | 0.388268 | 0.06938  | 8 | 0.946393 | 0.45        | 0.45        |
| Q9JLV6   | Pnkp                | Bifunctional polynucleotide phosphat      | -0.2146575 | 0.206793 | -1.03803 | 8 | 0.329609 | 0.433333333 | 0.433333333 |
| Q9JM05   | Pias4 Piasg         | E3 SUMO-protein ligase PIAS4 (EC 2.3      | 0.0248783  | 0.286099 | 0.08696  | 8 | 0.932843 | 0.4         | 0.4         |
| Q9JM13   | Rabgef1 Rabex5      | Rab5 GDP/GTP exchange factor (Rabe        | -0.0813752 | 0.228562 | -0.35603 | 5 | 0.736346 | 0.6         | 0.3         |
| Q9JM14   | Nt5c Dnt1           | 5'(3')-deoxyribonucleotidase, cytosoli    | 0.0453862  | 0.454812 | 0.09979  | 8 | 0.922965 | 0.328571429 | 0.328571429 |
| Q9JM76   | Arpc3               | Actin-related protein 2/3 complex sub     | 0.2174626  | 0.601539 | 0.36151  | 8 | 0.72708  | 0.175       | 0.175       |
| Q9JM93   | Arl6ip4             | ADP-ribosylation factor-like protein 6-   | 0.2535046  | 0.267076 | 0.94919  | 4 | 0.396274 | 0.7         | 0.3         |
| Q9JM96   | Cdc42ep4 Borg4 Cdc  | Cdc42 effector protein 4 (Binder of Rh    | 0.1287112  | 0.205342 | 0.62681  | 8 | 0.548247 | 0.39        | 0.39        |
| Q9JMA1   | Usp14               | Ubiquitin carboxyl-terminal hydrolase     | 0.2157729  | 0.133058 | 1.62164  | 8 | 0.143538 | 0.276       | 0.276       |

|          |                       |                                          |            |          |          |   |          |             |             |
|----------|-----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9JMA2   | Qtrt1 Tgt Tgut        | Queuine tRNA-ribosyltransferase catal    | 0.1066924  | 0.162134 | 0.65805  | 8 | 0.528984 | 0.483333333 | 0.483333333 |
| Q9JMB0   | Gkap1 Gkap42          | G kinase-anchoring protein 1 (cGMP-d     | 0.2550101  | 0.392221 | 0.65017  | 8 | 0.533804 | 0.414285714 | 0.414285714 |
| Q9JMD0   | Znf207 Bugz Zep Zfp   | BUB3-interacting and GLEBS motif-co      | -0.2583457 | 0.15756  | -1.63967 | 8 | 0.139705 | 0.25        | 0.25        |
| Q9JME5   | Ap3b2                 | AP-3 complex subunit beta-2 (Adaptor     | 0.2837685  | 0.404701 | 0.70118  | 8 | 0.503072 | 0.5375      | 0.5375      |
| Q9JMG1   | Edf1                  | Endothelial differentiation-related fact | 0.3416775  | 0.695145 | 0.49152  | 8 | 0.63626  | 0.35        | 0.35        |
| O54839   | Eomes Tbr2            | Eomesodermin homolog (T-box brain        | -0.9949699 | 0.229923 | -4.3274  | 4 | 0.012375 | 0.533333333 | 0.133333333 |
| Q9JMG7   | Hdgfl3 Hdgfrp3        | Hepatoma-derived growth factor-relate    | 0.0911639  | 0.134728 | 0.67665  | 8 | 0.517709 | 0.255555556 | 0.255555556 |
| Q9JMG9   | Patz1 mazr Zfp278     | POZ (BTB) and AT hook containing zinc    | -0.0519105 | 0.433478 | -0.11975 | 8 | 0.907631 | 0.530769231 | 0.530769231 |
| Q9JMH6   | Txnrd1 Trxr1          | Thioredoxin reductase 1, cytoplasmic (   | 0.18278    | 0.126506 | 1.44484  | 8 | 0.186507 | 0.256666667 | 0.256666667 |
| Q9JMH9   | Myo18a Myspdz         | Unconventional myosin-XVIIIa (Molecu     | -0.2112444 | 0.213473 | -0.98956 | 8 | 0.351372 | 0.477777778 | 0.477777778 |
| Q9JMK2   | Csnk1e                | Casein kinase I isoform epsilon (CKI-ε   | 0.1808197  | 0.726068 | 0.24904  | 8 | 0.809605 | 0.425       | 0.425       |
| Q9MQW4   | COX3 Co3 COXIII m     | Cytochrome c oxidase subunit 3           | -0.1213936 | 0.605697 | -0.20042 | 8 | 0.846154 | 0.033333333 | 0.033333333 |
| Q9NWX9   | Mageh1                | Melanoma-associated antigen H1 (MAC      | 1.155326   | 0.676533 | 1.70771  | 1 | 0.337248 | 0.7         | 0           |
| Q9QUH0   | Glrx Glrx1 Grx Grx1   | Glutaredoxin-1 (Thioltransferase-1) (T   | 0.0688645  | 0.507511 | 0.13569  | 2 | 0.904491 | 0.6         | 0           |
| Q9QUI0   | Rhoa Arha Arha2       | Transforming protein RhoA (EC 3.6.5.2    | -0.0045726 | 0.22013  | -0.02077 | 8 | 0.983936 | 0.1         | 0.1         |
| Q9QUM9   | Psma6                 | Proteasome subunit alpha type-6 (Mac     | 0.1528338  | 0.12267  | 1.24589  | 8 | 0.248053 | 0.194736842 | 0.194736842 |
| Q9QUP5   | Hapln1 Crtl1          | Hyaluronan and proteoglycan link prot    | -0.6041848 | 0.192442 | -3.13957 | 2 | 0.088232 | 0.6         | 0           |
| Q9QUR6   | Prep Pep              | Prolyl endopeptidase (PE) (EC 3.4.21.:   | 0.2518456  | 0.233449 | 1.0788   | 8 | 0.312125 | 0.315384615 | 0.315384615 |
| Q9QUR7   | Pin1                  | Peptidyl-prolyl cis-trans isomerase NIM  | 0.1690068  | 0.345035 | 0.48982  | 8 | 0.637407 | 0.313333333 | 0.313333333 |
| Q9QWF0   | Chaf1a Caip150        | Chromatin assembly factor 1 subunit ,    | 0.1817397  | 0.125503 | 1.44809  | 8 | 0.185621 | 0.330769231 | 0.330769231 |
| Q9QWH1   | Phc2 Edr2 Ph2         | Polyhomeotic-like protein 2 (mPH2) (E    | -0.03034   | 0.289016 | -0.10498 | 8 | 0.918979 | 0.388888889 | 0.388888889 |
| Q9QWR7   | Cradd Raidd/Cradd     | Death adaptor molecule short form        | 0.0182687  | 0.538895 | 0.0339   | 2 | 0.976036 | 0.6         | 0           |
| Q9QWT9   | Kifc1 Kifc4 Kifc5a Ki | Kinesin-like protein KIFC1               | -0.1587926 | 0.343686 | -0.46203 | 7 | 0.658077 | 0.525       | 0.425       |
| Q9QWV9   | Ccnt1                 | Cyclin-T1 (CycT1) (Cyclin-T)             | -0.3931343 | 0.349745 | -1.12406 | 6 | 0.303938 | 0.6         | 0.4         |
| Q9QX66   | Dpf1 Baf45b Neud4     | Zinc finger protein neuro-d4 (BRG1-as    | -0.2182815 | 0.335356 | -0.6509  | 8 | 0.533359 | 0.35        | 0.35        |
| Q9QXA5   | Lsm4                  | U6 snRNA-associated Sm-like protein I    | 0.3758532  | 0.430686 | 0.87268  | 8 | 0.408264 | 0.416666667 | 0.416666667 |
| Q9QXB9   | Drg2                  | Developmentally-regulated GTP-bindin     | 0.1797936  | 0.179527 | 1.00148  | 8 | 0.345919 | 0.45        | 0.45        |
| Q9QXD8   | Limd1                 | LIM domain-containing protein 1          | 0.0162223  | 0.424136 | 0.03825  | 7 | 0.970558 | 0.475       | 0.375       |
| Q9QXE7   | Tbl1x Tbl1            | F-box-like/WD repeat-containing prote    | -0.2391928 | 0.264134 | -0.90557 | 8 | 0.391618 | 0.454545455 | 0.454545455 |
| Q9QXF0   |                       | Immunoglobulin heavy chain V-D-J reg     | -0.1990579 | 0.49274  | -0.40398 | 2 | 0.725329 | 0.6         | 0           |
| Q9QXG4   | Acss2 Acas2 Acecs1    | Acetyl-coenzyme A synthetase, cytopla    | -0.1120081 | 0.39982  | -0.28015 | 6 | 0.788773 | 0.5         | 0.3         |
| Q9QXJ1   | Apbb1 Fe65 Rir        | Amyloid beta precursor protein bindin    | -0.0691758 | 0.264211 | -0.26182 | 8 | 0.800075 | 0.35        | 0.35        |
| Q9QXK3   | Copg2                 | Coatomer subunit gamma-2 (Gamma-:        | -0.0114125 | 0.130076 | -0.08774 | 8 | 0.932242 | 0.429166667 | 0.429166667 |
| Q9QXK7   | Cpsf3 Cpsf73          | Cleavage and polyadenylation specifi     | -0.1602617 | 0.144407 | -1.10979 | 8 | 0.299331 | 0.421428571 | 0.421428571 |
| Q6A028   | Swap70 Kiaa0640       | Switch-associated protein 70 (SWAP-7     | -1.037911  | 0.089408 | -11.6087 | 3 | 0.001373 | 0.5         | 0           |
| Q9QXL2-3 | Kif21a Kiaa1708       | Kinesin-like protein KIF21A              | 0.0226151  | 0.403452 | 0.05605  | 2 | 0.960395 | 0.6         | 0           |
| Q9QXL8   | Nme7                  | Nucleoside diphosphate kinase homol      | 0.0357314  | 0.270847 | 0.13192  | 8 | 0.898301 | 0.471428571 | 0.471428571 |
| Q9QXN0   | Shroom3 Kiaa1481      | Protein Shroom3                          | -0.2049586 | 0.420821 | -0.48705 | 7 | 0.641107 | 0.4         | 0.3         |

|          |                     |                                                                  |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9QXP6-2 | Mkrn1               | E3 ubiquitin-protein ligase makorin-1 (Mkrn1)                    | 0.4656726  | 0.091882 | 5.06817  | 1 | 0.124018 | 0.7         | 0           |
| Q9QXS1   | Plec Plec1          | Plectin (PCN) (PLTN) (Plectin-1) (Plectin)                       | 0.538186   | 0.550412 | 0.97779  | 8 | 0.356817 | 0.475       | 0.475       |
| Q9QXT0   | Cnpy2 Msap Tmem4    | Protein canopy homolog 2 (MIR-interactome)                       | 0.2151586  | 0.216398 | 0.99427  | 8 | 0.349208 | 0.264705882 | 0.264705882 |
| Q9QXX4   | Slc25a13            | Electrogenic aspartate/glutamate antiporter (Slc25a13)           | -0.3124782 | 0.493042 | -0.63378 | 8 | 0.543918 | 0.5         | 0.5         |
| Q9QY36   | Naa10 Ard1 Ard1a T  | N-alpha-acetyltransferase 10 (EC 2.3.1.18)                       | 0.0627265  | 0.124087 | 0.50551  | 4 | 0.639787 | 0.55        | 0.15        |
| Q9QY76   | Vapb                | Vesicle-associated membrane protein-1 (Vapb)                     | 0.0652422  | 0.154801 | 0.42146  | 8 | 0.684516 | 0.276923077 | 0.276923077 |
| Q9QY81   | Nup210 Kiaa0906     | Nuclear pore membrane glycoprotein 2 (Nup210)                    | -0.2771219 | 0.183292 | -1.51191 | 8 | 0.169006 | 0.44137931  | 0.44137931  |
| Q9QY93   | Dctpp1 Tdrg-TL1     | dCTP pyrophosphatase 1 (EC 3.6.1.12)                             | -0.0200146 | 0.263848 | -0.07586 | 8 | 0.941396 | 0.372727273 | 0.372727273 |
| Q9QYA2   | Tomm40 Mom35 To     | Mitochondrial import receptor subunit Tomm40                     | -0.1419554 | 0.125842 | -1.12805 | 8 | 0.291992 | 0.255555556 | 0.255555556 |
| Q9QYB1   | Clic4               | Chloride intracellular channel protein 4 (Clic4)                 | 0.299557   | 0.130376 | 2.29763  | 8 | 0.050658 | 0.116666667 | 0.116666667 |
| Q9QYB2   | Dach1 Dach          | Dachshund homolog 1 (Dach1)                                      | -0.1656389 | 0.285327 | -0.58052 | 8 | 0.577544 | 0.392857143 | 0.392857143 |
| B2RUR8   | Otud7b              | OTU domain-containing protein 7B (Ectoderm)                      | -1.0398951 | 0.212065 | -4.90367 | 3 | 0.016234 | 0.5         | 0           |
| Q9QYB8   | Add2                | Beta-adducin (Add97) (Erythrocyte adducin)                       | 0.2996972  | 0.130564 | 2.29541  | 8 | 0.050834 | 0.419230769 | 0.419230769 |
| Q9QYC0   | Add1                | Alpha-adducin (Erythrocyte adducin)                              | 0.1171667  | 0.161412 | 0.72589  | 8 | 0.488598 | 0.266666667 | 0.266666667 |
| Q9QYE6   | Golga5 Retii        | Golgin subfamily A member 5 (Golgin-130)                         | -0.0938892 | 0.345252 | -0.27194 | 7 | 0.793512 | 0.433333333 | 0.333333333 |
| Q9QYF1   | Rdh11 Arsd1 Mdt1    | Retinol dehydrogenase 11 (EC 1.1.1.30)                           | -0.3567281 | 0.258246 | -1.38135 | 8 | 0.204524 | 0.36        | 0.36        |
| Q9QYF9   | Ndr3 Ndr3           | Protein NDRG3 (N-myc downstream-regulated)                       | -0.0557186 | 0.140958 | -0.39529 | 8 | 0.702963 | 0.3         | 0.3         |
| Q9QYG0   | Ndr2 Kiaa1248 Nd    | Protein NDRG2 (N-myc downstream-regulated)                       | -0.656311  | 0.372431 | -1.76223 | 8 | 0.116051 | 0.227272727 | 0.227272727 |
| Q9QYI3   | Dnajc7 Ttc2         | DnaJ homolog subfamily C member 7 (Dnajc7)                       | 0.1860723  | 0.114873 | 1.61981  | 8 | 0.143932 | 0.246153846 | 0.246153846 |
| Q9QYI4   | Dnajb12             | DnaJ homolog subfamily B member 12 (Dnajb12)                     | 0.1321802  | 0.21461  | 0.61591  | 6 | 0.560578 | 0.666666667 | 0.466666667 |
| Q9QYJ0   | Dnaja2              | DnaJ homolog subfamily A member 2 (Dnaja2)                       | 0.609749   | 0.307576 | 1.98244  | 8 | 0.082736 | 0.288888889 | 0.288888889 |
| Q9QYJ3   | Dnajb1 Hsp40 Hsp40  | DnaJ homolog subfamily B member 1 (Dnajb1)                       | -0.1127842 | 0.31528  | -0.35773 | 8 | 0.729802 | 0.272727273 | 0.272727273 |
| Q9QYR6   | Map1a Mtap1 Mtap1   | Microtubule-associated protein 1A (MAP1A)                        | 0.4709965  | 0.242994 | 1.9383   | 8 | 0.088578 | 0.363333333 | 0.363333333 |
| Q9QYR9   | Acot2 Mte1          | Acyl-coenzyme A thioesterase 2, mitochondrial                    | 0.0095435  | 0.107171 | 0.08905  | 6 | 0.93194  | 0.5         | 0.3         |
| Q9QYS9   | Qki Qk Qk1          | KH domain-containing RNA-binding protein (Qki)                   | 0.1231601  | 0.135622 | 0.90811  | 8 | 0.390355 | 0.26        | 0.26        |
| Q9QYX7   | Pclo Acz            | Protein piccolo (Aczonin) (Brain-derived neurotrophic factor)    | -0.1117365 | 0.220645 | -0.50641 | 5 | 0.634103 | 0.3         | 0           |
| Q9QYY0   | Gab1                | GRB2-associated-binding protein 1 (Gab1)                         | -0.264501  | 0.353641 | -0.74794 | 8 | 0.475907 | 0.47        | 0.47        |
| Q9QYY8   | Spast Kiaa1083 Spg  | Spastin (EC 5.6.1.1)                                             | 0.511174   | 0.307561 | 1.66202  | 8 | 0.135083 | 0.42        | 0.42        |
| Q9QZ06   | Tollip              | Toll-interacting protein                                         | -0.144146  | 0.356803 | -0.40399 | 7 | 0.698275 | 0.48        | 0.38        |
| Q9QZ08   | Nagk GnK            | N-acetyl-D-glucosamine kinase (N-acetylglucosaminyl transferase) | -0.1869488 | 0.177856 | -1.05112 | 4 | 0.352509 | 0.7         | 0.3         |
| Q9QZ73   | Dcun1d1 Dcun1l1 F   | DCN1-like protein 1 (DCNL1) (DCUN1)                              | 0.9247465  | 0.646931 | 1.42944  | 8 | 0.190744 | 0.471428571 | 0.471428571 |
| Q9QZ83   | Actg1 Actl          | Actin, cytoplasmic 2 (Gamma-actin)                               | -0.0373191 | 0.219413 | -0.17009 | 8 | 0.869165 | 0           | 0           |
| Q9QZ88   | Vps29               | Vacuolar protein sorting-associated protein 29 (Vps29)           | 0.2253136  | 0.187379 | 1.20245  | 8 | 0.26357  | 0.227272727 | 0.227272727 |
| Q9QZB7   | Actr10 Act11 Actr11 | Actin-related protein 10 (Actin-related protein)                 | -0.1017575 | 0.220327 | -0.46185 | 8 | 0.65649  | 0.35        | 0.35        |
| Q9QZB9   | Dctn5               | Dynactin subunit 5 (Dynactin subunit)                            | 0.5149893  | 0.386831 | 1.3313   | 8 | 0.219776 | 0.2         | 0.2         |
| Q9QZD8   | Slc25a10 Dic        | Mitochondrial dicarboxylate carrier (DIC)                        | -0.1826375 | 0.470002 | -0.38859 | 6 | 0.710995 | 0.433333333 | 0.233333333 |
| Q9QZD9   | Eif3i Eif3s2 Trip1  | Eukaryotic translation initiation factor 3 (Eif3)                | 0.0801825  | 0.176962 | 0.45311  | 8 | 0.662509 | 0.275       | 0.275       |
| Q9QZE5   | Copg1 Copg          | Coatomer subunit gamma-1 (Gamma-COP)                             | 0.191129   | 0.150157 | 1.27286  | 8 | 0.23881  | 0.420689655 | 0.420689655 |

|          |                     |                                          |            |          |          |   |          |             |             |
|----------|---------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q8K1K1   | Gemin4              | Gem (Nuclear organelle) associated pr    | -1.0698947 | 0.224958 | -4.75597 | 5 | 0.005078 | 0.533333333 | 0.233333333 |
| Q9QZF2   | Gpc1                | Glypican-1 [Cleaved into: Secreted glyp  | 0.0933126  | 0.175894 | 0.5305   | 8 | 0.610168 | 0.146428571 | 0.146428571 |
| Q9QZH3   | Ppie Cyp33          | Peptidyl-prolyl cis-trans isomerase E (f | 0.0661071  | 0.247489 | 0.26711  | 8 | 0.79614  | 0.283333333 | 0.283333333 |
| Q9QZI8   | Serinc1 Aigp2 Tde1l | Serine incorporator 1 (Axotomy-induc     | -0.0005086 | 0.223306 | -0.00228 | 5 | 0.998271 | 0.3         | 0           |
| Q9QZM0   | Ubqln2 Plc2         | Ubiquilin-2 (Chap1) (DSK2 homolog)       | 0.1767577  | 0.13934  | 1.26854  | 8 | 0.240273 | 0.229411765 | 0.229411765 |
| Q9QZQ1   | Afdn Af6 Mlt4       | Afadin (Afadin adherens junction form    | -0.0363843 | 0.242486 | -0.15005 | 8 | 0.884442 | 0.433333333 | 0.433333333 |
| Q9QZQ8-1 | Macroh2a1 H2afy     | Core histone macro-H2A.1 (Histone m      | -0.1039053 | 0.255765 | -0.40625 | 8 | 0.695207 | 0.188888889 | 0.188888889 |
| Q9QZR0   | Rnf25               | E3 ubiquitin-protein ligase RNF25 (EC    | -0.0685072 | 0.268733 | -0.25493 | 6 | 0.807293 | 0.6         | 0.4         |
| Q9QZV9   | Nxt1                | NTF2-related export protein 1            | -0.0875015 | 0.402315 | -0.2175  | 7 | 0.834026 | 0.35        | 0.25        |
| Q9R020   | Zranb2 Zfp265 Zis Z | Zinc finger Ran-binding domain-contai    | 0.3741695  | 0.319628 | 1.17064  | 8 | 0.275431 | 0.381818182 | 0.381818182 |
| Q9R059   | Fhl3                | Four and a half LIM domains protein 3    | 0.4961754  | 0.64916  | 0.76434  | 8 | 0.466611 | 0.442857143 | 0.442857143 |
| Q9R060   | Nubp1               | Cytosolic Fe-S cluster assembly factor   | 0.0486541  | 0.367735 | 0.13231  | 8 | 0.898008 | 0.533333333 | 0.533333333 |
| Q9R069   | Bcam Gplu Lu        | Basal cell adhesion molecule (B-CAM c    | 2.356272   | 1.090674 | 2.16038  | 1 | 0.275984 | 0.7         | 0           |
| Q9R078   | Prkab1              | 5'-AMP-activated protein kinase subun    | 0.4752408  | 0.626976 | 0.75799  | 8 | 0.470195 | 0.35        | 0.35        |
| Q9R099   | Tbl2                | Transducin beta-like protein 2           | 0.0497367  | 0.304189 | 0.16351  | 6 | 0.875489 | 0.5         | 0.3         |
| Q9R0A0   | Pex14               | Peroxisomal membrane protein PEX14       | 0.1927033  | 0.260719 | 0.73912  | 8 | 0.480955 | 0.409090909 | 0.409090909 |
| Q9R0B7   | Znf346 Jaz Zfp346   | Zinc finger protein 346 (Just another z  | 0.3991377  | 0.355112 | 1.12398  | 5 | 0.31207  | 0.3         | 0           |
| Q9R0D8   | Wdr54 D3Mm3e        | WD repeat-containing protein 54          | 0.3231595  | 0.485054 | 0.66623  | 4 | 0.541719 | 0.666666667 | 0.266666667 |
| Q9R0E1   | Plod3               | Multifunctional procollagen lysine hyd   | -0.5030454 | 0.282917 | -1.77807 | 8 | 0.113284 | 0.52        | 0.52        |
| Q9R0G7   | Zeb2 Sip1 Zfhx1b Zf | Zinc finger E-box-binding homeobox 2     | 0.0041448  | 0.31406  | 0.0132   | 8 | 0.989793 | 0.48        | 0.48        |
| Q9R0H0-2 | Acox1 Acox Paox     | Peroxisomal acyl-coenzyme A oxidase      | -0.1676362 | 0.165905 | -1.01043 | 8 | 0.341869 | 0.558333333 | 0.558333333 |
| Q9R0L6   | Pcm1                | Pericentriolar material 1 protein (PCM   | 0.0899452  | 0.242706 | 0.37059  | 8 | 0.720561 | 0.433333333 | 0.433333333 |
| Q9R0L7   | Akap8l Nakap Nakap  | A-kinase anchor protein 8-like (AKAP8    | 0.3307851  | 0.170083 | 1.94485  | 7 | 0.092869 | 0.566666667 | 0.466666667 |
| Q9R0M0   | Celsr2              | Cadherin EGF LAG seven-pass G-type i     | -0.2787581 | 0.517117 | -0.53906 | 8 | 0.604517 | 0.58        | 0.58        |
| Q9R0M4   | Podxl Pclp1         | Podocalyxin (Podocalyxin-like protein    | -0.2465102 | 0.375107 | -0.65717 | 6 | 0.53545  | 0.35        | 0.15        |
| Q9R0M6   | Rab9a Rab9 Sid99    | Ras-related protein Rab-9A (Sid 99)      | -0.0221662 | 0.183439 | -0.12084 | 7 | 0.907216 | 0.5         | 0.4         |
| Q9R0N0   | Galk1 Galk Glk      | Galactokinase (EC 2.7.1.6) (Galactose    | 0.0827425  | 0.208631 | 0.3966   | 8 | 0.702033 | 0.266666667 | 0.266666667 |
| Q9R0P3   | Esd Es10 Sid478     | S-formylglutathione hydrolase (FGH) (    | -0.0638334 | 0.124191 | -0.51399 | 8 | 0.62115  | 0.147368421 | 0.147368421 |
| Q9R0P4   | Smapp Sid2057       | Small acidic protein (Sid 2057)          | -0.0758629 | 0.415035 | -0.18279 | 8 | 0.859513 | 0.325       | 0.325       |
| Q9R0P5   | Dstn Dsn Sid23      | Destrin (Actin-depolymerizing factor) (  | 0.3017383  | 0.250142 | 1.20627  | 8 | 0.262174 | 0.295       | 0.295       |
| Q9R0P6   | Sec11a Sec11l1 Sid  | Signal peptidase complex catalytic sub   | 0.6269276  | 0.395301 | 1.58595  | 8 | 0.151412 | 0.52        | 0.52        |
| Q9R0P9   | Uchl1               | Ubiquitin carboxyl-terminal hydrolase    | 0.2307651  | 0.115729 | 1.99401  | 8 | 0.081267 | 0.276470588 | 0.276470588 |
| Q9R0Q3   | Tmed2 Rnp24 Sid3f   | Transmembrane emp24 domain-conta         | 0.2355941  | 0.474919 | 0.49607  | 8 | 0.633184 | 0.32        | 0.32        |
| Q9R0Q4   | Morf4l2 Kiaa0026 S  | Mortality factor 4-like protein 2 (MORF  | 0.5609952  | 0.629003 | 0.89188  | 8 | 0.398488 | 0.533333333 | 0.533333333 |
| Q9R0Q6   | Arpc1a Sid329       | Actin-related protein 2/3 complex sub    | -0.0500432 | 0.115857 | -0.43194 | 8 | 0.67719  | 0.276       | 0.276       |
| Q9R0Q7   | Ptges3 Sid3177 Teb  | Prostaglandin E synthase 3 (EC 5.3.99    | 0.192626   | 0.219511 | 0.87753  | 8 | 0.405783 | 0.285714286 | 0.285714286 |
| Q9R0X0   | Med20 Trfp          | Mediator of RNA polymerase II transcri   | 0.0339793  | 0.137365 | 0.24737  | 4 | 0.816804 | 0.55        | 0.15        |
| Q9R0X4   | Acot9 Acate2        | Acyl-coenzyme A thioesterase 9, mitoc    | -0.4471973 | 0.670202 | -0.66726 | 2 | 0.57329  | 0.6         | 0           |

|        |                     |                                           |            |          |          |   |          |             |             |
|--------|---------------------|-------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9R0Y5 | Ak1                 | Adenylate kinase isoenzyme 1 (AK 1) (E    | 0.3546986  | 0.208564 | 1.70067  | 8 | 0.127423 | 0.4         | 0.4         |
| Q9R190 | Mta2 Mta1l1         | Metastasis-associated protein MTA2 (M     | -0.1404662 | 0.186137 | -0.75464 | 8 | 0.472094 | 0.286666667 | 0.286666667 |
| Q9R1C0 | Taf7 Taf2f          | Transcription initiation factor TFIID sub | -0.0212123 | 0.330753 | -0.06413 | 7 | 0.950657 | 0.6         | 0.5         |
| Q9R1C7 | Prpf40a Fbp11 Fnb1  | Pre-mRNA-processing factor 40 homo        | 0.2010404  | 0.150866 | 1.33258  | 8 | 0.219376 | 0.317391304 | 0.317391304 |
| Q9R1J0 | Nsdhl               | Sterol-4-alpha-carboxylate 3-dehydrog     | -0.2103542 | 0.271142 | -0.77581 | 7 | 0.463263 | 0.35        | 0.25        |
| Q9R1K9 | Cetn2 Calt          | Centrin-2 (Caltractin isoform 1)          | 0.481217   | 0.310224 | 1.55119  | 8 | 0.159455 | 0.316666667 | 0.316666667 |
| Q9R1L5 | Mast1 Kiaa0973 Sas  | Microtubule-associated serine/threonin    | -0.5327885 | 0.472844 | -1.12677 | 5 | 0.310991 | 0.5         | 0.2         |
| Q9R1P0 | Psma4               | Proteasome subunit alpha type-4 (Mac      | 0.2346884  | 0.148069 | 1.58499  | 8 | 0.151629 | 0.195       | 0.195       |
| Q9R1P1 | Psmb3               | Proteasome subunit beta type-3 (Proti     | 0.1206105  | 0.226986 | 0.53136  | 8 | 0.609603 | 0.264285714 | 0.264285714 |
| Q9R1P3 | Psmb2               | Proteasome subunit beta type-2 (Macr      | 0.1557639  | 0.575643 | 0.27059  | 8 | 0.793556 | 0.253333333 | 0.253333333 |
| Q9R1P4 | Psma1               | Proteasome subunit alpha type-1 (Mac      | 0.2133617  | 0.143031 | 1.49172  | 8 | 0.174115 | 0.167741935 | 0.167741935 |
| Q9R1Q7 | Plp2                | Proteolipid protein 2                     | -1.1248908 | 0.737592 | -1.52508 | 4 | 0.201927 | 0.4         | 0           |
| Q9R1Q8 | Tagln3 Np25         | Transgelin-3 (Neuronal protein NP25)      | 0.2757227  | 0.247347 | 1.11472  | 8 | 0.297336 | 0.166666667 | 0.166666667 |
| Q9R1Q9 | Atp6ap1 Atp6ip1 At  | V-type proton ATPase subunit S1 (V-A      | 0.2594846  | 0.059942 | 4.32895  | 1 | 0.144526 | 0.7         | 0           |
| Q9R1T2 | Sae1 Aos1 Sua1 Ub   | SUMO-activating enzyme subunit 1 (UI      | 0.1991007  | 0.10348  | 1.92405  | 8 | 0.090548 | 0.185714286 | 0.185714286 |
| Q9R1T4 | Septin6 Kiaa0128 S  | Septin-6                                  | 0.2484354  | 0.245575 | 1.01165  | 8 | 0.341322 | 0.377777778 | 0.377777778 |
| Q9R1X4 | Timeless Tim1 Timek | Protein timeless homolog (mTim)           | 0.0333028  | 0.595437 | 0.05593  | 8 | 0.956769 | 0.45        | 0.45        |
| Q9R1Z7 | Pts                 | 6-pyruvoyl tetrahydrobiopterin syntha     | -0.3369654 | 0.258838 | -1.30184 | 6 | 0.240715 | 0.566666667 | 0.366666667 |
| Q9R1Z8 | Sorbs3 Scam1 Sh3c   | Vinexin (SH3 domain-containing prote      | 0.2960808  | 0.407342 | 0.72686  | 5 | 0.499902 | 0.4         | 0.1         |
| Q9R226 | Khdrbs3 Salp Slm2   | KH domain-containing, RNA-binding, s      | 0.2010999  | 0.359878 | 0.5588   | 8 | 0.591591 | 0.42        | 0.42        |
| Q9WTJ4 | Fiz1                | Ft3-interacting zinc finger protein 1     | -0.3946676 | 0.501971 | -0.78624 | 8 | 0.454385 | 0.4         | 0.4         |
| Q9WTL7 | Lypla2              | Acyl-protein thioesterase 2 (APT-2) (E    | 0.3360164  | 0.214838 | 1.56405  | 8 | 0.156436 | 0.19        | 0.19        |
| Q9WTM5 | Ruvbl2              | RuvB-like 2 (EC 3.6.4.12) (p47 protein    | 0.1029086  | 0.199247 | 0.51649  | 8 | 0.619484 | 0.228125    | 0.228125    |
| Q9WTN0 | Ggps1               | Geranylgeranyl pyrophosphate syntha       | 0.4682987  | 0.358673 | 1.30564  | 7 | 0.232945 | 0.5         | 0.4         |
| Q9WTP6 | Ak2                 | Adenylate kinase 2, mitochondrial (AK     | 0.056156   | 0.114148 | 0.49196  | 8 | 0.635962 | 0.205       | 0.205       |
| Q9WTP7 | Ak3 Ak3l Ak3l1 Akl3 | GTP:AMP phosphotransferase AK3, mit       | -0.200087  | 0.103234 | -1.93819 | 8 | 0.088594 | 0.3625      | 0.3625      |
| Q9WTQ5 | Akap12 Gag12 Ssec   | A-kinase anchor protein 12 (AKAP-12)      | 0.0513424  | 0.279398 | 0.18376  | 8 | 0.858773 | 0.363829787 | 0.363829787 |
| Q9WTR5 | Cdh13               | Cadherin-13 (Heart cadherin) (H-cadh      | -0.1854948 | 0.370018 | -0.50131 | 6 | 0.634009 | 0.633333333 | 0.433333333 |
| Q9WTU0 | Phf2 Kiaa0662       | Lysine-specific demethylase PHF2 (EC      | 0.3553862  | 0.235933 | 1.5063   | 7 | 0.175714 | 0.54        | 0.44        |
| Q06832 |                     | Vbeta2 deleting element                   | -1.1083849 | 0.30595  | -3.62276 | 3 | 0.036177 | 0.5         | 0           |
| Q9WTV7 | Rlim Rnf12          | E3 ubiquitin-protein ligase RLIM (EC 2.   | 0.0183441  | 0.381413 | 0.0481   | 6 | 0.963201 | 0.666666667 | 0.466666667 |
| Q9WTX2 | Prkra Rax           | Interferon-inducible double-stranded I    | 0.2356125  | 0.20052  | 1.17501  | 8 | 0.273778 | 0.371428571 | 0.371428571 |
| Q9WTX5 | Skp1 Skp1a          | S-phase kinase-associated protein 1 (C    | 0.4077016  | 0.479092 | 0.85099  | 7 | 0.422928 | 0.35        | 0.25        |
| Q9WTX6 | Cul1                | Cullin-1 (CUL-1)                          | 0.1734647  | 0.156857 | 1.10588  | 8 | 0.300923 | 0.424       | 0.424       |
| Q8C3X8 | Lmf2 Tmem112b Tn    | Lipase maturation factor 2 (Transmeml     | -1.1332606 | 0.228463 | -4.96036 | 2 | 0.038321 | 0.6         | 0           |
| Q9WTZ1 | Rnf7 Rbx2 Sag       | RING-box protein 2 (Rbx2) (RING fing      | 0.239723   | 0.177202 | 1.35282  | 8 | 0.213102 | 0.366666667 | 0.366666667 |
| Q9WU28 | Pfdn5 Eig1 Mm1 Pfc  | Prefoldin subunit 5 (EIG-1) (Myc mod      | 0.4284492  | 0.53571  | 0.79978  | 8 | 0.446935 | 0.353846154 | 0.353846154 |
| Q9WU40 | Lemd3 Man1          | Inner nuclear membrane protein Man1       | -0.1174968 | 0.396209 | -0.29655 | 8 | 0.774361 | 0.4         | 0.4         |

|        |                       |                                          |            |          |          |   |          |             |             |
|--------|-----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9WU56 | Pus1 MNCb-0873        | Pseudouridylate synthase 1 homolog (     | -0.3943146 | 0.315741 | -1.24885 | 6 | 0.258234 | 0.633333333 | 0.433333333 |
| Q9WU62 | Incenp                | Inner centromere protein                 | -0.2385029 | 0.308016 | -0.77432 | 8 | 0.46101  | 0.475       | 0.475       |
| Q9WU78 | Pdcd6ip Aip1 Alix     | Programmed cell death 6-interacting p    | 0.0747165  | 0.110568 | 0.67575  | 8 | 0.518251 | 0.271875    | 0.271875    |
| Q9WU84 | Ccs Ccsd              | Copper chaperone for superoxide disr     | -0.362932  | 0.152274 | -2.38342 | 5 | 0.062898 | 0.55        | 0.25        |
| Q9WUA2 | Farsb Farsl Farslb Fr | Phenylalanine--tRNA ligase beta subun    | -0.0434017 | 0.092815 | -0.46761 | 8 | 0.652534 | 0.17826087  | 0.17826087  |
| Q9WUA6 | Akt3                  | RAC-gamma serine/threonine-protein I     | 0.2054695  | 0.208052 | 0.98759  | 8 | 0.35228  | 0.3         | 0.3         |
| Q9WUB3 | Pygm                  | Glycogen phosphorylase, muscle form      | -0.1161298 | 0.449413 | -0.2584  | 2 | 0.820257 | 0.6         | 0           |
| Q9WUD1 | Stub1 Chip            | E3 ubiquitin-protein ligase CHIP (EC 2   | 0.2478606  | 0.137077 | 1.80819  | 8 | 0.10819  | 0.34        | 0.34        |
| Q9WUD8 | Faim Faim1            | Fas apoptotic inhibitory molecule 1      | 0.4090527  | 0.350623 | 1.16665  | 7 | 0.281556 | 0.625       | 0.525       |
| Q9WUI1 | Mapk11 Prkm11         | Mitogen-activated protein kinase 11 (M   | 0.2696299  | 0.092189 | 2.92476  | 2 | 0.099721 | 0.7         | 0.1         |
| Q9WUK2 | Eif4h Wbscr1          | Eukaryotic translation initiation factor | -0.1431045 | 0.29694  | -0.48193 | 8 | 0.642763 | 0.344444444 | 0.344444444 |
| Q9WUK4 | Rfc2                  | Replication factor C subunit 2 (Activat  | -0.016079  | 0.162124 | -0.09918 | 8 | 0.923438 | 0.323076923 | 0.323076923 |
| Q9WUK6 | Zbtb18 Rp58 Zfp23     | Zinc finger and BTB domain-containing    | -0.8687126 | 0.407302 | -2.13284 | 8 | 0.065502 | 0.4         | 0.4         |
| Q9WUL7 | Arl3                  | ADP-ribosylation factor-like protein 3   | 0.3023117  | 0.175285 | 1.72469  | 8 | 0.122869 | 0.294117647 | 0.294117647 |
| Q9WUM3 | Coro1b                | Coronin-1B (Coronin-2)                   | 0.3534534  | 0.178196 | 1.98351  | 8 | 0.082598 | 0.306666667 | 0.306666667 |
| Q9WUM4 | Coro1c                | Coronin-1C (Coronin-3)                   | 0.4507169  | 0.241661 | 1.86508  | 8 | 0.099154 | 0.266666667 | 0.266666667 |
| Q9WUM5 | Succlg1               | Succinate--CoA ligase [ADP/GDP-form      | -0.1649744 | 0.129904 | -1.26998 | 8 | 0.239785 | 0.245454545 | 0.245454545 |
| Q9WUQ2 | Preb Sec12            | Guanine nucleotide-exchange factor SI    | -0.2526065 | 0.278827 | -0.90596 | 8 | 0.391425 | 0.52        | 0.52        |
| Q9WUR2 | Eci2 Peci             | Enoyl-CoA delta isomerase 2 (EC 5.3.3    | 0.2907878  | 0.243814 | 1.19266  | 8 | 0.267173 | 0.4         | 0.4         |
| Q9WUR9 | Ak4 Ak-4 Ak3b Ak3l    | Adenylate kinase 4, mitochondrial (AK    | 0.0037218  | 0.506654 | 0.00735  | 8 | 0.994319 | 0.4         | 0.4         |
| Q9WV02 | RbmX HnrnpG Hnrp      | RNA-binding motif protein, X chromos     | -0.0694999 | 0.839443 | -0.08279 | 8 | 0.93605  | 0.325       | 0.325       |
| Q9WV03 | Fam50a D0HXS992       | Protein FAM50A (Protein XAP-5)           | 0.1477692  | 0.226017 | 0.6538   | 8 | 0.531582 | 0.409090909 | 0.409090909 |
| Q9WV32 | Arpc1b                | Actin-related protein 2/3 complex sub    | -0.5856066 | 0.341694 | -1.71383 | 7 | 0.130281 | 0.366666667 | 0.266666667 |
| Q9WV34 | Mpp2 DlgH2            | MAGUK p55 subfamily member 2 (Disc       | -0.2178078 | 0.295687 | -0.73662 | 7 | 0.485304 | 0.6         | 0.5         |
| Q9WV54 | Asah1 Asah            | Acid ceramidase (AC) (ACDase) (Acid C    | 0.2225613  | 0.323472 | 0.68804  | 8 | 0.510882 | 0.175       | 0.175       |
| Q9WV55 | Vapa Vap33            | Vesicle-associated membrane protein-i    | 0.072568   | 0.274504 | 0.26436  | 8 | 0.798186 | 0.247058824 | 0.247058824 |
| Q9WV60 | Gsk3b                 | Glycogen synthase kinase-3 beta (GSK     | 0.1563768  | 0.106145 | 1.47324  | 8 | 0.17891  | 0.135714286 | 0.135714286 |
| Q9WV85 | Nme3                  | Nucleoside diphosphate kinase 3 (NDP     | 0.528245   | 1.169391 | 0.45173  | 3 | 0.682126 | 0.6         | 0.1         |
| Q9WV89 | Stxbp4                | Syntaxin-binding protein 4 (Syntaxin 4   | 0.0420889  | 0.356968 | 0.11791  | 8 | 0.909048 | 0.533333333 | 0.533333333 |
| Q9WV91 | Ptgfrn Fprp           | Prostaglandin F2 receptor negative reg   | -0.3921496 | 0.301159 | -1.30213 | 8 | 0.229108 | 0.48        | 0.48        |
| Q9WV98 | Timm9 Tim9 Tim9a1     | Mitochondrial import inner membrane      | -0.5147665 | 0.369177 | -1.39436 | 7 | 0.205863 | 0.416666667 | 0.316666667 |
| Q9WWA2 | Timm8a1 Ddp1 Tim      | Mitochondrial import inner membrane      | 0.1454704  | 0.221376 | 0.65712  | 8 | 0.529551 | 0.5         | 0.5         |
| Q9WWA3 | Bub3                  | Mitotic checkpoint protein BUB3 (WD      | 0.0913656  | 0.123124 | 0.74206  | 8 | 0.479269 | 0.188888889 | 0.188888889 |
| Q9WWA4 | Tagln2 Kiaa0120       | Transgelin-2 (SM22-beta)                 | -0.1100568 | 0.120298 | -0.91487 | 8 | 0.387005 | 0.184615385 | 0.184615385 |
| Q9WWA7 | Peg12 Frat3           | FRAT3 (Paternally expressed 12)          | -0.1292644 | 0.182981 | -0.70643 | 4 | 0.518894 | 0.7         | 0.3         |
| Q9WVE8 | Pacsin2               | Protein kinase C and casein kinase sub   | 0.0402132  | 0.483474 | 0.08318  | 5 | 0.936939 | 0.45        | 0.15        |
| Q9WWF7 | Pole Pole1            | DNA polymerase epsilon catalytic sub     | -0.3953802 | 0.524561 | -0.75374 | 8 | 0.472606 | 0.4         | 0.4         |
| Q9WWG6 | Carm1 Prmt4           | Histone-arginine methyltransferase CA    | 0.0123221  | 0.186235 | 0.06616  | 8 | 0.948871 | 0.371428571 | 0.371428571 |

|          |                    |                                          |            |          |          |   |          |             |             |
|----------|--------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9WV19   | Mapk8ip1 Ibb1 Jip1 | C-Jun-amino-terminal kinase-interactin   | -0.1281554 | 1.018739 | -0.1258  | 3 | 0.907849 | 0.5         | 0           |
| Q9WVJ2   | Psmd13             | 26S proteasome non-ATPase regulator      | 0.3209775  | 0.260375 | 1.23275  | 8 | 0.252663 | 0.2625      | 0.2625      |
| Q9WVK4   | Ehd1 Past1         | EH domain-containing protein 1 (PAS1     | 0.0573726  | 0.146315 | 0.39212  | 8 | 0.705211 | 0.373913043 | 0.373913043 |
| Q9WWL0   | Gstz1 Maai         | Maleylacetoacetate isomerase (MAAI) (E   | -0.1489862 | 0.186728 | -0.79788 | 5 | 0.461137 | 0.3         | 0           |
| Q9WWL3   | Slc12a7 Kcc4       | Solute carrier family 12 member 7 (Ele   | -0.2760204 | 0.248249 | -1.11187 | 8 | 0.298489 | 0.6         | 0.6         |
| Q9WWM1   | Racgap1 Mgcacr     | Rac GTPase-activating protein 1 (Male    | -0.2061482 | 0.251593 | -0.81937 | 8 | 0.436303 | 0.466666667 | 0.466666667 |
| Q9WWM3   | Anapc7 Apc7        | Anaphase-promoting complex subunit       | 0.0257559  | 0.254241 | 0.1013   | 8 | 0.921801 | 0.514285714 | 0.514285714 |
| Q9WWQ5   | Apip Mmrp19        | Methylthioribulose-1-phosphate dehy      | -0.1412638 | 0.20909  | -0.67561 | 8 | 0.518334 | 0.381818182 | 0.381818182 |
| Q9WVS8   | Mapk7 Bmk1 Erk5    | Mitogen-activated protein kinase 7 (MA   | 0.2378642  | 0.297776 | 0.7988   | 8 | 0.447469 | 0.55        | 0.55        |
| Q9Z0E0   | Ncdn Kiaa0607 Sfa  | Neurochondrin (M-Sema F-associating      | -0.2484892 | 0.227945 | -1.09013 | 8 | 0.3074   | 0.35        | 0.35        |
| Q9Z0F6   | Rad9a Rad9         | Cell cycle checkpoint control protein R  | 0.0283494  | 0.741854 | 0.03821  | 4 | 0.971348 | 0.4         | 0           |
| Q9Z0G0   | Gipc1 Gipc Rgs19ip | PDZ domain-containing protein GIPC1      | 0.0096548  | 0.258229 | 0.03739  | 8 | 0.971091 | 0.335714286 | 0.335714286 |
| Q9Z0H1   | Wdr46 Bing4        | WD repeat-containing protein 46 (WD      | 0.4926908  | 0.39215  | 1.25638  | 1 | 0.427972 | 0.7         | 0           |
| Q9Z0H3   | Smarb1 Baf47 Ini1  | SWI/SNF-related matrix-associated acti   | -0.3049868 | 0.1779   | -1.71437 | 7 | 0.130178 | 0.5         | 0.4         |
| Q9Z0H4   | Celf2 Cugbp2 Napo  | CUGBP Elav-like family member 2 (CE      | -0.2749324 | 1.123089 | -0.2448  | 4 | 0.818657 | 0.4         | 0           |
| P51863   | Atp6v0d1 Atp6d     | V-type proton ATPase subunit d 1 (V-A    | -1.164536  | 0.300042 | -3.88125 | 5 | 0.011627 | 0.6         | 0.3         |
| Q9Z0J0   | Npc2               | NPC intracellular cholesterol transport  | 0.769841   | 0.494611 | 1.55646  | 8 | 0.158212 | 0.377777778 | 0.377777778 |
| Q9Z0L0   | Tpbp 5t4           | Trophoblast glycoprotein (5T4 oncofe     | -0.2159553 | 0.158939 | -1.35873 | 8 | 0.211301 | 0.42        | 0.42        |
| Q9Z0N1   | Eif2s3x            | Eukaryotic translation initiation factor | -0.0531316 | 0.103031 | -0.51569 | 8 | 0.620018 | 0.190625    | 0.190625    |
| Q9D0M2   | Cdca7              | Cell division cycle-associated protein 7 | -1.3054393 | 0.108322 | -12.0515 | 2 | 0.006815 | 0.6         | 0           |
| Q9Z0P7   | Sufu               | Suppressor of fused homolog              | 0.1756445  | 0.181391 | 0.96832  | 8 | 0.361244 | 0.414285714 | 0.414285714 |
| Q9Z0R4   | Itsn1 Ese1 Itsn    | Intersectin-1 (EH and SH3 domains pr     | 0.0299862  | 0.202466 | 0.1481   | 8 | 0.885925 | 0.388235294 | 0.388235294 |
| Q9Z0R9   | Fads2 Fadsd2       | Acyl-CoA 6-desaturase (EC 1.14.19.3)     | -0.069621  | 0.255328 | -0.27267 | 8 | 0.792011 | 0.271428571 | 0.271428571 |
| Q9Z0S1   | Bpnt1              | 3'(2'),5'-bisphosphate nucleotidase 1    | 0.1663027  | 0.190317 | 0.87382  | 7 | 0.41119  | 0.45        | 0.35        |
| Q9Z0U1   | Tjp2 Zo2           | Tight junction protein ZO-2 (Tight junc  | 0.4105524  | 0.357077 | 1.14976  | 8 | 0.283452 | 0.33125     | 0.33125     |
| Q9Z0V7   | Timm17b Tim17b     | Mitochondrial import inner membrane      | -0.0290808 | 0.126721 | -0.22949 | 8 | 0.824249 | 0.233333333 | 0.233333333 |
| Q9Z0W3   | Nup160 Gtl1-13 Ki  | Nuclear pore complex protein Nup160      | -0.0623929 | 0.257729 | -0.24209 | 8 | 0.814803 | 0.35        | 0.35        |
| Q9Z0X1   | Aifm1 Aif Pdcd8    | Apoptosis-inducing factor 1, mitochor    | 0.1451551  | 0.284014 | 0.51108  | 8 | 0.623095 | 0.364705882 | 0.364705882 |
| Q9Z0Y1   | Dctn3              | Dynactin subunit 3 (Dynactin light cha   | 0.3904175  | 0.556624 | 0.7014   | 7 | 0.505694 | 0.457142857 | 0.357142857 |
| Q9Z103   | Adnp               | Activity-dependent neuroprotector ho     | -0.0006167 | 0.108245 | -0.0057  | 8 | 0.995594 | 0.304545455 | 0.304545455 |
| Q9Z110   | Aldh18a1 P5cs Pycs | Delta-1-pyrroline-5-carboxylate synth    | -0.0095408 | 0.155837 | -0.06122 | 8 | 0.952684 | 0.390697674 | 0.390697674 |
| Q9Z120   | Mettl1             | tRNA (guanine-N(7)-)-methyltransfer      | -0.1306842 | 0.285658 | -0.45749 | 8 | 0.65949  | 0.2         | 0.2         |
| Q9Z126   | Pf4 Cxcl4 Scyb4    | Platelet factor 4 (PF-4) (C-X-C motif    | 0.0898331  | 0.274262 | 0.32754  | 2 | 0.774364 | 0.6         | 0           |
| Q9Z127   | Slc7a5 Lat1        | Large neutral amino acids transporter    | 0.0695609  | 0.413619 | 0.16818  | 8 | 0.870619 | 0.2         | 0.2         |
| Q9Z130   | Hnrnpdl Hnrpd Jk   | Heterogeneous nuclear ribonucleopro      | -0.7034856 | 0.53677  | -1.31059 | 6 | 0.237925 | 0.2         | 0           |
| Q9Z138   | Ror2               | Tyrosine-protein kinase transmembran     | -0.0476038 | 1.104521 | -0.0431  | 4 | 0.967688 | 0.7         | 0.3         |
| Q9Z148-2 | Ehmt2 Bat8 G9a Ng  | Histone-lysine N-methyltransferase EH    | -0.1948924 | 0.125212 | -1.5565  | 8 | 0.158203 | 0.372727273 | 0.372727273 |
| Q9Z150   | Zbtb12 H2-Bf       | Zinc finger and BTB domain containing    | -0.3378469 | 0.363625 | -0.92911 | 5 | 0.395476 | 0.3         | 0           |

|          |                       |                                          |            |          |          |   |          |             |             |
|----------|-----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9Z160   | Cog1 Ldlb             | Conserved oligomeric Golgi complex s     | 0.2799257  | 0.461526 | 0.60652  | 7 | 0.563313 | 0.533333333 | 0.433333333 |
| Q9Z172   | Sumo3 Smt3a Smt3      | Small ubiquitin-related modifier 3 (SUI  | 0.5490799  | 0.962293 | 0.5706   | 7 | 0.586115 | 0.35        | 0.25        |
| Q9Z1A1   | Tfg                   | TFG protein (Trk-fused gene) (Trk-fuser  | 0.2635429  | 0.278492 | 0.94632  | 8 | 0.371687 | 0.206666667 | 0.206666667 |
| Q9Z1B3   | Plcb1 Plcb            | 1-phosphatidylinositol 4,5-bisphosph     | -0.2049463 | 0.211935 | -0.96702 | 3 | 0.404864 | 0.5         | 0           |
| Q9Z1B5   | Mad2l1 Mad2a          | Mitotic spindle assembly checkpoint p    | -0.1813104 | 0.406722 | -0.44578 | 7 | 0.669215 | 0.48        | 0.38        |
| Q9Z1D1   | Eif3g Eif3p42 Eif3s   | Eukaryotic translation initiation factor | -0.04937   | 0.305096 | -0.16182 | 8 | 0.875462 | 0.25        | 0.25        |
| Q9Z1E4   | Gys1 Gys Gys3         | Glycogen [starch] synthase, muscle (EC   | -0.5998379 | 0.264565 | -2.26726 | 3 | 0.108198 | 0.5         | 0           |
| Q9Z1F9   | Uba2 Sae2 Uble1b      | SUMO-activating enzyme subunit 2 (EC     | 0.041023   | 0.15667  | 0.26184  | 8 | 0.800057 | 0.258333333 | 0.258333333 |
| Q9Z1G3   | Atp6v1c1 Atp6c Atp    | V-type proton ATPase subunit C 1 (V-/    | 0.4424199  | 0.226429 | 1.9539   | 8 | 0.086469 | 0.457142857 | 0.457142857 |
| O35451   | Atf6b Crebl1          | Cyclic AMP-dependent transcription fa    | -1.3706196 | 0.052753 | -25.982  | 2 | 0.001478 | 0.6         | 0           |
| Q9Z1J3   | Nfs1 Nifs             | Cysteine desulfurase (m-Nfs1) (EC 2.8    | -0.3454175 | 0.257168 | -1.34316 | 8 | 0.216076 | 0.46        | 0.46        |
| Q9Z1K5   | Arih1 Ari Ubch7bp l   | E3 ubiquitin-protein ligase ARIH1 (EC    | 0.0205943  | 0.239778 | 0.08589  | 8 | 0.933666 | 0.4         | 0.4         |
| Q9Z1K6   | Arih2 Ari2 Triad1 Uij | E3 ubiquitin-protein ligase ARIH2 (ARI   | 0.0931464  | 0.360108 | 0.25866  | 8 | 0.802427 | 0.366666667 | 0.366666667 |
| Q9Z1M8   | Ik Red Rer            | Protein Red (Cytokine IK) (IK factor) (P | 0.3472604  | 0.291849 | 1.18986  | 8 | 0.268211 | 0.376190476 | 0.376190476 |
| Q9Z1N5   | Ddx39b Bat1 Bat1a     | Spliceosome RNA helicase Ddx39b (EC      | 0.0765749  | 0.175082 | 0.43737  | 8 | 0.673413 | 0.17826087  | 0.17826087  |
| Q9Z1P6   | Ndufa7                | NADH dehydrogenase [ubiquinone] 1        | 1.3713806  | 0.776177 | 1.76684  | 8 | 0.11524  | 0.266666667 | 0.266666667 |
| Q9Z1Q5   | Clic1                 | Chloride intracellular channel protein 1 | 0.2153642  | 0.194924 | 1.10486  | 8 | 0.301337 | 0.145       | 0.145       |
| Q9Z1Q9   | Vars1 Bat6 G7a Vars   | Valine--tRNA ligase (EC 6.1.1.9) (Prote  | -0.243031  | 0.136889 | -1.77539 | 8 | 0.113748 | 0.23        | 0.23        |
| Q9Z1R2   | Bag6 Bat3             | Large proline-rich protein BAG6 (BAG f   | -0.0938354 | 0.063057 | -1.48811 | 8 | 0.175041 | 0.245833333 | 0.245833333 |
| Q9Z1S0   | Bub1b Mad3l           | Mitotic checkpoint serine/threonine-pr   | -0.5150728 | 0.404366 | -1.27378 | 6 | 0.249858 | 0.65        | 0.45        |
| Q9Z1S5   | Septin3 Sep3 Sept3    | Neuronal-specific septin-3               | 0.3139682  | 0.152758 | 2.05534  | 8 | 0.073893 | 0.246666667 | 0.246666667 |
| Q9Z1T1   | Ap3b1                 | AP-3 complex subunit beta-1 (Adaptor     | -0.2783036 | 0.181656 | -1.53204 | 8 | 0.16405  | 0.51        | 0.51        |
| Q9Z1W9   | Stk39 Spak            | STE20/SPS1-related proline-alanine-ri    | 0.0946833  | 0.1273   | 0.74378  | 8 | 0.478282 | 0.211111111 | 0.211111111 |
| Q9Z1X4-3 | Ilf3                  | Interleukin enhancer-binding factor 3    | -0.0215391 | 0.146928 | -0.1466  | 8 | 0.887077 | 0.222916667 | 0.222916667 |
| Q9Z1Y4   | Trip6 Zrp1            | Thyroid receptor-interacting protein 6   | -0.0623108 | 0.25616  | -0.24325 | 8 | 0.813934 | 0.433333333 | 0.433333333 |
| Q9Z1Z0   | Uso1 Vdp              | General vesicular transport factor p11   | -0.0286257 | 0.150851 | -0.18976 | 8 | 0.854222 | 0.35483871  | 0.35483871  |
| Q9Z1Z2   | Strap Unrip           | Serine-threonine kinase receptor-asso    | 0.1946453  | 0.140545 | 1.38493  | 8 | 0.203469 | 0.193103448 | 0.193103448 |
| Q9Z204-2 | Hnrnpc Hnrpc          | Heterogeneous nuclear ribonucleopro      | 0.2406969  | 0.744876 | 0.32314  | 7 | 0.75603  | 0.1         | 0           |
| Q9Z204   | Hnrnpc Hnrpc          | Heterogeneous nuclear ribonucleopro      | 0.1938933  | 0.690259 | 0.2809   | 8 | 0.785916 | 0.35        | 0.35        |
| Q9Z247   | Fkbp9 Fkbp60 Fkbp     | Peptidyl-prolyl cis-trans isomerase FKE  | 0.0437049  | 0.509384 | 0.0858   | 8 | 0.933734 | 0.433333333 | 0.433333333 |
| Q9Z255   | Ube2a Rad6a           | Ubiquitin-conjugating enzyme E2 A (E     | -0.2180335 | 0.282969 | -0.77052 | 6 | 0.470233 | 0.45        | 0.25        |
| Q8C547   | Heatr5b Kiaa1414      | HEAT repeat-containing protein 5B        | -1.4643808 | 0.196634 | -7.44723 | 5 | 0.000688 | 0.666666667 | 0.366666667 |
| Q9Z275   | Rlbp1 Cralbp          | Retinaldehyde-binding protein 1 (Cellu   | -0.0454428 | 0.411314 | -0.11048 | 7 | 0.915128 | 0.45        | 0.35        |
| Q9Z277   | Baz1b Wbscr9 Wstf     | Tyrosine-protein kinase BAZ1B (EC 2.7    | -0.141885  | 0.227069 | -0.62486 | 8 | 0.549469 | 0.386666667 | 0.386666667 |
| Q7TPH6   | Mycbp2 Pam Phr1       | E3 ubiquitin-protein ligase MYCBP2 (E    | -1.9297919 | 0.377878 | -5.10692 | 3 | 0.014524 | 0.5         | 0           |
| Q9Z2A5   | Ate1                  | Arginyl-tRNA--protein transferase 1 (A   | -0.2986346 | 0.155716 | -1.91782 | 5 | 0.113245 | 0.3         | 0           |
| Q9Z2C9   | Mtmt7                 | Myotubularin-related protein 7 (Inosit   | -0.826687  | 0.174791 | -4.72958 | 1 | 0.13265  | 0.7         | 0           |
| Q9Z2D0   | Mtmt9 Mtmt3           | Myotubularin-related protein 9 (Inactiv  | 0.6662449  | 0.725596 | 0.9182   | 7 | 0.389054 | 0.35        | 0.25        |

|                 |                      |                                          |            |          |          |   |          |             |             |
|-----------------|----------------------|------------------------------------------|------------|----------|----------|---|----------|-------------|-------------|
| Q9Z2D1          | Mtmr2                | Myotubularin-related protein 2 (Phosp    | -0.1144313 | 0.300336 | -0.38101 | 6 | 0.716321 | 0.5         | 0.3         |
| Q9Z2D6-2        | Mecp2                | Methyl-CpG-binding protein 2 (MeCp-      | -0.0609234 | 0.285746 | -0.21321 | 8 | 0.836497 | 0.353333333 | 0.353333333 |
| Q9Z2D8          | Mbd3                 | Methyl-CpG-binding domain protein 3      | 0.5598714  | 0.307011 | 1.82362  | 8 | 0.105665 | 0.121428571 | 0.121428571 |
| Q9Z2F7          | Bnip3l Nix           | BCL2/adenovirus E1B 19 kDa protein-      | 0.3128753  | 0.299272 | 1.04545  | 8 | 0.326371 | 0           | 0           |
| Q9Z2H7          | Gipc2 Semcap2        | PDZ domain-containing protein GIPC2      | -1.3719949 | 0.553665 | -2.47803 | 5 | 0.055976 | 0.3         | 0           |
| Q9Z2I0          | Letm1                | Mitochondrial proton/calcium exchang     | 0.4867565  | 0.276516 | 1.76032  | 8 | 0.116391 | 0.484615385 | 0.484615385 |
| Q9Z2I8          | Suc1g2               | Succinate--CoA ligase [GDP-forming] s    | 0.2749524  | 0.230919 | 1.19069  | 8 | 0.267905 | 0.444444444 | 0.444444444 |
| Q9Z2I9          | Suc1a2               | Succinate--CoA ligase [ADP-forming] s    | 0.1698753  | 0.238338 | 0.71275  | 8 | 0.49626  | 0.278571429 | 0.278571429 |
| Q9Z2L6          | Minpp1 Mipp MNCb     | Multiple inositol polyphosphate phosp    | -0.3387732 | 0.614012 | -0.55174 | 6 | 0.601058 | 0.2         | 0           |
| Q9Z2L7          | Crlf3 Creme9 Cytor   | Cytokine receptor-like factor 3 (Cytoki  | 0.5740839  | 0.313853 | 1.82915  | 8 | 0.104774 | 0.5         | 0.5         |
| Q9Z2M7          | Pmm2                 | Phosphomannomutase 2 (PMM 2) (EC         | 0.2094627  | 0.217419 | 0.96341  | 8 | 0.363557 | 0.355555556 | 0.355555556 |
| Q9Z2N8          | Actl6a Actl6 Baf53a  | Actin-like protein 6A (53 kDa BRG1-as    | 0.0793522  | 0.122594 | 0.64727  | 8 | 0.535582 | 0.260714286 | 0.260714286 |
| Q9Z2Q2          | Knop1 Tsg118         | Lysine-rich nucleolar protein 1 (Testis- | -0.3873107 | 0.204322 | -1.89559 | 6 | 0.106821 | 0.5         | 0.3         |
| Q9Z2Q5          | Mrpl40 Nlvcf         | Large ribosomal subunit protein mL40     | 0.5054545  | 0.491685 | 1.02801  | 7 | 0.338153 | 0.4         | 0.3         |
| Q9Z2Q6          | Septin5 Pnutl1 Sepi  | Septin-5 (Cell division control-related  | 0.2634532  | 0.227534 | 1.15786  | 8 | 0.280317 | 0.273333333 | 0.273333333 |
| Q9Z2R6          | Unc119 Unc119h       | Protein unc-119 homolog A (Retinal p     | 0.0253916  | 0.259322 | 0.09792  | 8 | 0.924408 | 0.325       | 0.325       |
| Q9Z2R9          | Eif2ak1 Hri          | Eukaryotic translation initiation factor | 0.3284092  | 0.255835 | 1.28367  | 2 | 0.327894 | 0.6         | 0           |
| Q9Z2U0          | Psma7                | Proteasome subunit alpha type-7 (Pro     | 0.0681536  | 0.116227 | 0.58639  | 8 | 0.573785 | 0.080952381 | 0.080952381 |
| Q9Z2U1          | Psma5                | Proteasome subunit alpha type-5 (Mac     | -0.0275341 | 0.243176 | -0.11323 | 8 | 0.91264  | 0.327272727 | 0.327272727 |
| Q9Z2U2          | Zfp292 Zfp15         | Zinc finger protein 292 (Zinc finger pro | -0.1981804 | 0.558678 | -0.35473 | 6 | 0.734926 | 0.6         | 0.4         |
| Q9Z2V5          | Hdac6                | Histone deacetylase 6 (HD6) (EC 3.5.1    | -0.0571937 | 0.272851 | -0.20962 | 8 | 0.839207 | 0.347058824 | 0.347058824 |
| Q9Z2W0          | Dnpep                | Aspartyl aminopeptidase (EC 3.4.11.2:    | 0.0382192  | 0.172696 | 0.22131  | 8 | 0.830396 | 0.27826087  | 0.27826087  |
| Q9Z2W1          | Stk25 Sok1           | Serine/threonine-protein kinase 25 (E    | -0.5492255 | 0.704102 | -0.78004 | 7 | 0.460925 | 0.1         | 0           |
| Q9Z2X1          | Hnrnpf Hnrpf         | Heterogeneous nuclear ribonucleopro      | 0.2157013  | 0.191182 | 1.12825  | 8 | 0.29191  | 0.236363636 | 0.236363636 |
| Q9Z2X2          | Psmd10               | 26S proteasome non-ATPase regulator      | 0.2706778  | 0.500806 | 0.54048  | 8 | 0.603581 | 0.566666667 | 0.566666667 |
| Q9Z2X8          | Keap1 Inrf2 Kiaa0113 | Kelch-like ECH-associated protein 1 (C   | -0.0585893 | 0.295017 | -0.1986  | 7 | 0.848223 | 0.4         | 0.3         |
| Q9Z2Y8          | Plp1bp Prosc         | Pyridoxal phosphate homeostasis pro      | 0.1021909  | 0.149281 | 0.68456  | 8 | 0.512964 | 0.228571429 | 0.228571429 |
| Q9Z315          | Sart1 Haf            | U4/U6.U5 tri-snRNP-associated protei     | 0.1316133  | 0.195195 | 0.67427  | 8 | 0.519147 | 0.36        | 0.36        |
| Q9Z321          | Top3b Top3b1         | DNA topoisomerase 3-beta-1 (EC 5.6.:     | -0.3867291 | 0.235397 | -1.64288 | 8 | 0.139032 | 0.5625      | 0.5625      |
| REV__A0A991ENX0 | #N/A                 | #N/A                                     | -0.914229  | 0.919264 | -0.99452 | 2 | 0.424764 | 0.6         | 0           |
| S4R2L4          | Rsrc2                | Arginine/serine-rich coiled-coil protein | -0.1773673 | 0.213754 | -0.82977 | 8 | 0.430729 | 0.433333333 | 0.433333333 |
| V9GX43          | Celf2                | CUGBP Elav-like family member 2 (Bru     | 0.2513558  | 0.187258 | 1.3423   | 8 | 0.216343 | 0           | 0           |
| V9GXE4          | Actr5                | Actin-related protein 5                  | -0.1869305 | 0.20163  | -0.9271  | 7 | 0.384726 | 0.5         | 0.4         |
| W6PPR4          | Ank3                 | 480-kDa ankyrinG                         | 0.6153416  | 0.495617 | 1.24157  | 5 | 0.269462 | 0.6         | 0.3         |
| Z4YL78          | Ckap5                | Cytoskeleton associated protein 5        | 0.0592616  | 0.210256 | 0.28185  | 8 | 0.785209 | 0.36        | 0.36        |
| Z4YLI8          | Cluh                 | Clustered mitochondria protein homo      | 0.2094217  | 0.997461 | 0.20995  | 5 | 0.84199  | 0.5         | 0.2         |