

Supplemental Table S1: List of material used.

REAGENT	SOURCE	IDENTIFIER/CATALOG NO.
Antibodies		
Rabbit Monoclonal Anti-Prohibitin	Abcam	Cat# AB75766
Mouse Monoclonal Anti-Prohibitin	Abcam	Cat# AB224653
Rabbit Polyclonal Anti-Lamin B1	Abcam	Cat# AB65986
Rabbit Monoclonal Anti-MAT α 1	Abcam	Cat# AB129176
Rabbit Polyclonal Anti-MMP7	Abcam	Cat# AB232737
Rabbit Monoclonal Anti- Exportin-1/CRM1	Cell Signaling	Cat# 46249
Mouse Monoclonal Anti-GAPDH	Cell Signaling	Cat# 97166 S
Mouse Monoclonal Anti- β -Actin	Sigma	Cat# A3854
Rabbit Monoclonal Anti-c-MYC	Abcam	Cat# AB32072
Rabbit Polyclonal Anti-c-MAF	Abcam	Cat# AB77071
Rabbit Polyclonal Anti-MAFG	Abcam	Cat# AB154318
Rabbit Monoclonal Anti-GCLC	Abcam	Cat# AB190685
Mouse Monoclonal Anti-GCLM	Abcam	Cat# AB126704
Rabbit Polyclonal Anti-TOMM20	Abcam	Cat# AB78547
Mouse Monoclonal Anti-CD9	Santa Cruz	Cat# sc-20048
Rabbit Monoclonal Anti-F4/80	Abcam	Cat# AB6640
Rabbit Polyclonal Anti-4-Hydroxynonenal	Abcam	Cat# AB46545
Rabbit Polyclonal Anti- α -SMA	Abcam	Cat# AB5694
Rabbit Polyclonal Anti-p53	Abcam	Cat# AB131442
Rabbit IgG Isotype Control	Invitrogen	Cat# 10500C
Rabbit IgG Isotype Control	Invitrogen	Cat# 02-6502
Mouse SQSTM1/p62 Antibody (A-6)	Santa Cruz	Cat# sc-48402
Rabbit Polyclonal Anti-IGFBP1	Proteintech	Cat# 13981-1-AP
Rabbit Polyclonal Anti-CCND1	Proteintech	Cat# 26939-1-AP
VDAC	Cell Signaling	Cat# 4661S
Rabbit CoraLite® Plus 488-conjugated CD68 Polyclonal antibody	Proteintech	Cat# CL488-25747
Rabbit CoraLite® Plus 488-conjugated HNF4A Recombinant monoclonal antibody	Proteintech	Cat# CL488-84316-7
Rabbit CoraLite® Plus 488-conjugated Alpha smooth muscle actin Polyclonal antibody	Proteintech	Cat# CL488-14395

Rabbit CoraLite® Plus 488-conjugated MPO Recombinant monoclonal antibody	Proteintech	Cat# CL488-81610
Mouse Prohibitin Antibody (E-5) Alexa Fluor® 647	Santa Cruz	Cat# sc-377037 AF647
Rat CD45 Antibody (EM-05) [Alexa Fluor® 594]	Novus Biologicals	Cat# NBP1-44763AF594
Mouse Cytokeratin 8/18 Antibody (K8.8 + DC10) [Alexa Fluor® 647]	Novus Biologicals	Cat# NBP2-34655AF647
Goat pAb to Rb IgG (Alexa Fluor 488)	Abcam	Cat# AB150081
Goat pAb to Rb IgG (Alexa Fluor 647)	Abcam	Cat# AB150083
Goat pAb to Ms IgG (Alexa Fluor 488)	Abcam	Cat# AB150113
Chemicals, peptides, and kits		
NES peptide	Biomatik	ITYLPAGQSVLLQL-Gly-CRGDKGPDC (Cys-Cys)
BODIPY	Invitrogen	Cat# D3922
NE-PER™ Nuclear and Cytoplasmic Extraction Reagents	Thermo Scientific	Cat# 78833
Mitochondria Isolation Kit for Tissue	Thermo Scientific	Cat# 89801
RIPA Lysis and Extraction Buffer	Thermo Scientific	Cat# 89901
Micro BCA™ Protein Assay Kit	Thermo Scientific	Cat# 23235
SurePAGETM, Bis-Tris, 10*8	GenScript	Cat# M00654
Tris-MES SDS Running Buffer	GenScript	Cat# M00677
Tris-MOPS SDS Running Buffer	GenScript	Cat# M00138
eBlot L1 Transfer Buffer Kit	GenScript	Cat# L00724
eBlot L2 Transfer Basic Kit, midi	GenScript	Cat# L01015-30
10X TBST	Bioland Scientific LLC.	Cat# TBST01-10L
Blotting Accelerator	Proteintech	Cat# PR20039
Mounting medium with DAPI	Abcam	Cat# AB104139
Protein A/G Magnetic Beads	MedChem Express	Cat# HY-K0202

H&E staining	Cedar Sinai Medical Center (iLab core facility)	Cedar Sinai Medical Center
SnRNA Sequencing	Biomarker Technologies (BMKGENE) USA Inc.	BMKGENE USA Inc.
Triglyceride Colorimetric Assay Kit	Cayman Chemical	Cat# 10010303
Aspartate Aminotransferase Colorimetric Activity Assay Kit	Cayman Chemical	Cat# 701640
ALT Activity Assay Kit	Sigma	Cat# MAK052
Uncoated Mouse IL-6 ELISA Kit	Elabsciences	Cat# E-UNEL-M0070
Uncoated Mouse IL-1 β ELISA Kit	Elabsciences	Cat# E-UNEL-M0064
Mouse TNF alpha Uncoated ELISA Kit	Thermo Scientific	Cat# 88-7324-88
TMB ELISA Buffer Kit	PeproTech®	Cat# 900-T00
ImmPRESS® Excel Amplified Polymer Staining Kit, Anti-Rabbit IgG, Peroxidase.	Vector Laboratories	Cat# MP-7601
ImmPRESS® Excel Amplified Polymer Staining Kit, Anti-Mouse IgG, Peroxidase.	Vector Laboratories	Cat# MP-7602
Glutathione Assay Kit	Cayman Chemical	Cat# 703002
ExoQuick® ULTRA EV Isolation Kit for Serum and Plasma	System Biosciences, LLC	Cat# EQUltra-20A-1
Lipofectamine® RNAiMAX Reagent	Thermo Scientific	Cat# 13778-150
CRM1(XPO1) siRNA Assay ID: s98101	Thermo Scientific	Cat# 4390824
Oligonucleotides		
Taqman gene expression assay probe Phb1	Life Technology	Mm01627033_g1
Taqman gene expression assay probe PHB1	Life Technology	Hs00855044_g1
Taqman gene expression assay probe Mat1a	Life Technology	Mm00522563_m1

Taqman gene expression assay probe Col1a1	Life Technology	Mm00801666_g1
Taqman gene expression assay probe Acta2	Life Technology	Mm00725412_s1
Taqman gene expression assay probe Il-6(	Life Technology	Mm00446190_m1
Taqman gene expression assay probe Il-1 β	Life Technology	Mm00434228_m1
Taqman gene expression assay probe Tnf α	Life Technology	Mm00443258_m1
Taqman gene expression assay probe GAPDH	Life Technology	Hs02758991_g1
Taqman gene expression assay probe Gapdh	Life Technology	Mm99999915_g1
Taqman gene expression assay probe Gclm	Life Technology	Mm00514996_m1
Taqman gene expression assay probe Gclc	Life Technology	Mm00802655_m1
Taqman gene expression assay probe Myc	Life Technology	Mm00487803_m1
Taqman gene expression assay probe Maf	Life Technology	Mm02581355_s1
Taqman gene expression assay probe Mafg	Life Technology	Mm00521961_g1

Supplemental Table S2: Mapping of 42 Reference Cell-Type Annotations to Broad Cell-Type Categories.

Original label	Grouped cell type
CD8.T	Cytotoxic T cells
gdT	Cytotoxic T cells
NK	NK/NKT cells
NKT	NK/NKT cells
ILC	NK/NKT cells
Spleen.CD4Act.48.hrs	Helper T cells
Spleen.Naive.CD4	Helper T cells
Spleen.LN.Naive.CD4	Helper T cells
Spleen.Naive.CD8	Cytotoxic T cells
Spleen.Treg	Tregs
Colon.Treg.Nrplo	Tregs
Thymic.preT.DN1	Thymocytes

DN2a	Thymocytes
DN2b	Thymocytes
DN3	Thymocytes
DN4	Thymocytes
ISP	Thymocytes
Thymic.4+8+CD3lo.DP	Thymocytes
Thymic.CD4SP	Thymocytes
Thymic.CD8SP	Thymocytes
Dendritic	Dendritic cells
B	B cells
Memory.B	B cells
Spleen.CD19	B cells
GC.centroblasts	B cells
GC.centrocytes	B cells
Plasmablast	B cells
Plasma	B cells
Macrophage	Macrophages
PerC.macrophage	Macrophages
small.peritoneal.macs	Macrophages
spleen.red.pulp.macs	Macrophages
Ly6Chi.blood.monocytes	Monocytes
Ly6Clo.blood.monocytes	Monocytes
BM.Neutrophil	Neutrophils
Thio.induced.Peritoneal.Neutrophil	Neutrophils
Blood.endothelial	Endothelial cells
Lymphatic.endothelial	Endothelial cells
Fibroblastic.reticular	Fibroblasts
Pericyte	Fibroblasts
Stem.Prog	Stem.Prog cells
Microglia	Microglia