

**Supplemental Table 2: Differences in protein expression within regions of interest (ROIs) in IPF vs. control (n = 12 ROIs)**

Targets	Log <sub>2</sub>	p value	Adjusted p value	-log <sub>10</sub> p value	-log <sub>10</sub> adjusted p value
CTLA4	5.016961671	4.82739E-10	1.78613E-08	9.316287914	7.74808619
SMA	3.733023038	2.10868E-13	1.56042E-11	12.67599003	10.80675831
CD56	1.056955924	0.000105425	0.000557249	3.97705477	3.253951085
PD-1	0.887427724	0.002341709	0.004912013	2.630467132	2.30874046
GAPDH	0.855982851	0.006524526	0.012379869	2.18545106	1.907283947
Phospho-AKT (phospho T308)	0.618599087	0.048941807	0.071013603	1.310319997	1.148658453
CD4	0.538556041	0.030698614	0.04732703	1.512881235	1.324890753
CD3	0.514185138	0.082071248	0.110423134	1.08580896	0.95693993
CD20	0.434416631	0.162735785	0.200707468	0.788516937	0.697436467
S100B	0.340823553	0.389579871	0.436801673	0.409403491	0.359715707
PTEN	0.285990142	0.277616519	0.324696324	0.556554695	0.488522629
Ki-67	0.271755303	0.326226182	0.371395961	0.486481186	0.430162823
CD11c	0.2016193	0.438573143	0.484394218	0.357957966	0.314801049
CD163	0.134871689	0.684085418	0.712990436	0.164889667	0.146916296
CD45	0.12761867	0.66147493	0.699273498	0.179486611	0.155352931
GZMB	0.125761775	0.592619742	0.635563201	0.227223885	0.196841256
INPP4B	0.015975727	0.947124546	0.947124546	0.023592908	0.023592908
CD27	-0.061189867	0.793328827	0.804196345	0.100546765	0.094637905
Beta-2-microglobulin	-0.087855146	0.694738815	0.714037115	0.158178436	0.146279213
PD-L1	-0.15691708	0.591005596	0.635563201	0.228408407	0.196841256
BCL6	-0.300338026	0.237866463	0.288559316	0.623666785	0.5397649
PD-L2	-0.308077571	0.241898572	0.28871765	0.616366696	0.539526665
p53	-0.355587018	0.150287094	0.188495678	0.823078312	0.724698604
CD14	-0.357813376	0.138501624	0.176708968	0.858545135	0.752741409
GZMA	-0.373292592	0.280818442	0.324696324	0.551574374	0.488522629
BAD	-0.399365525	0.135920661	0.176458402	0.866714523	0.753357658
CD95/Fas	-0.424881696	0.073561013	0.10468298	1.133352299	0.980123922
ICOS	-0.429894907	0.076926211	0.1054174	1.11392566	0.9770877
BIM	-0.437439178	0.089973296	0.118893283	1.045886372	0.924842679
CD45RO	-0.49438767	0.020722473	0.033336152	1.683558421	1.477084533
Phospho-p38 MAPK (T180/Y182)	-0.510976142	0.076086564	0.1054174	1.118692027	0.9770877
CD127	-0.52374526	0.025085264	0.039495948	1.600581319	1.403447457
Pan-AKT	-0.558623749	0.038186683	0.057669684	1.41808807	1.23905243
CD25	-0.599308834	0.01457647	0.023970194	1.836347651	1.620328445

Cleaved Caspase 9	-0.649480318	0.003867927	0.007735854	2.412521748	2.111491752
S6	-0.653359406	0.004735426	0.009221619	2.324640954	2.035192831
PARP	-0.725495975	0.00237775	0.004912013	2.623833822	2.30874046
pan-RAS	-0.759806085	0.000635656	0.001959938	3.196778042	2.707757564
Histone H3	-0.761310773	0.008465175	0.014914832	2.072364064	1.826381635
BRAF	-0.784580625	0.012176336	0.020478383	1.914483391	1.688704348
PR	-0.805453326	0.002361534	0.004912013	2.626805797	2.30874046
Phospho-MEK1 (S217/S221)	-0.821048428	0.01009786	0.017377712	1.995770671	1.760007407
CD8	-0.824132229	0.007498904	0.013872973	2.125002184	1.857830456
CD40	-0.846303021	0.001519013	0.00362603	2.818438579	2.440568553
PLCG1	-0.896699931	0.008256863	0.014902631	2.083184926	1.826737063
NY-ESO-1	-0.906553804	0.000998641	0.002548256	3.000590688	2.593756966
Bcl-2	-0.924585492	0.000630262	0.001959938	3.200478644	2.707757564
Fibronectin	-0.943253072	0.000827749	0.002450136	3.082101522	2.610809811
MET	-1.022837257	0.000137687	0.0006368	3.861108346	3.195996609
ER-alpha	-1.025372947	0.000882818	0.002461656	3.054128899	2.608772701
CD66b	-1.025796273	0.043205722	0.063944468	1.364458737	1.194197021
Phospho-Tuberin (T1462)	-1.048985888	0.002389628	0.004912013	2.621669679	2.30874046
Phospho-c-RAF (S338)	-1.09054349	0.000898172	0.002461656	3.046640657	2.608772701
MART1	-1.128606988	0.000590836	0.001959938	3.228532973	2.707757564
Her2	-1.166655997	3.5175E-05	0.000260295	4.453765902	3.584534182
FAP-alpha	-1.20904668	5.39379E-05	0.000358514	4.268106087	3.445493774
Phospho-GSK3A (S21)/Phospho-GSK3B (S9)	-1.230812025	0.000261912	0.001045819	3.581844826	2.980543648
FOXP3	-1.240280195	0.002341282	0.004912013	2.630546199	2.30874046
CD80	-1.242664001	0.000268521	0.001045819	3.571021767	2.980543648
HLA-DR	-1.328104854	0.000938102	0.002479271	3.027749731	2.605676042
BCLXL	-1.408107273	0.000119781	0.000590921	3.921611166	3.228470706
Phospho-AKT1 (S473)	-1.414056112	8.62523E-05	0.000490975	4.064229102	3.308940734
Phospho-GSK3B (S9)	-1.423087145	0.000530843	0.001870589	3.275033984	2.728021559
p44/42 MAPK ERK1/2	-1.48413735	0.000230646	0.001003986	3.637054944	2.998272145
CD68	-1.500054245	0.000324535	0.001200778	3.488739022	2.920537298
CD44	-1.563017605	5.0224E-06	6.19429E-05	5.299088659	4.208008189
EGFR	-1.585486552	3.56517E-06	5.27645E-05	5.447920279	4.277658563

Phospho-p44/42 MAPK ERK1/2 (T202/Y204)	-1.677844514	0.001429809	0.003526863	2.844721898	2.452611433
Phospho-p90 RSK (T359/S363)	-1.82956498	6.70847E-06	7.09181E-05	5.173376762	4.149243083
Phospho-PRAS40 (T246)	-1.84994348	2.41268E-05	0.000198376	4.617501133	3.702511923
PanCk	-1.960132473	5.81374E-05	0.000358514	4.235544248	3.445493774
CD34	-2.349532733	8.72852E-06	8.07388E-05	5.059059508	4.092917776
EpCAM	-2.498362336	5.20619E-08	9.63146E-07	7.283479776	6.016308048
Phospho-JNK (T183/Y185)	-2.517583637	2.3511E-08	5.79937E-07	7.628729337	6.236618872