

Supplementary Table SII. Gene expression in cluster a vs. cluster b (non-significant). Fold changes of cluster b/cluster a are indicated. Significance was determined using a Wilcoxon Mann-Whitney U test with Benjamini Hochberg correction for multiple testing ($p < 0.05$, $FDR < 0.01$). Note that for significance, the p-value must not exceed the FDR. Significant differential gene expression in cluster a vs. cluster b is shown in Table 1. Fold changes are calculated as (cluster b/a), or $-1/(cluster\ b/a)$ to prevent fold changes > 0 and < 1 . FC, fold change.

For gene expression levels in individual samples, see supplementary excel files.

Gene	Mean FPM Cluster a	Mean FPM Cluster b	P-value	FDR	FC Cluster b/a	Significant?
FH	433.10	182.34	0.004	0.003	-2.38	N
IDH2	1337.13	655.22	0.004	0.003	-2.04	N
PGAM1	482.42	810.02	0.004	0.003	1.68	N
SDHC	2775.33	1572.76	0.004	0.003	-1.76	N
SLC16A7	269.57	127.95	0.004	0.003	-2.11	N
ACO2	822.50	281.67	0.005	0.003	-2.92	N
ATG4A	153.21	93.77	0.005	0.003	-1.63	N
CPT1A	906.39	508.98	0.005	0.003	-1.78	N
ENO1	8921.33	17504.47	0.005	0.004	1.96	N
GLUD1	2424.01	1231.93	0.005	0.004	-1.97	N
MDH1	1035.21	476.61	0.005	0.004	-2.17	N
VEGF	130.47	649.38	0.005	0.004	4.98	N
VEGF121	253.32	1094.29	0.005	0.004	4.32	N
CYCS	799.54	413.20	0.008	0.004	-1.94	N
IGF1R	670.63	355.06	0.008	0.004	-1.89	N
SDHB	674.50	289.54	0.008	0.004	-2.33	N
SDHD	2089.99	912.76	0.008	0.004	-2.29	N
SOD1	1072.39	552.64	0.008	0.004	-1.94	N
HK2	13.79	105.38	0.011	0.004	7.64	N
IDH1	1478.08	616.60	0.011	0.004	-2.40	N
IDH3B	729.51	451.73	0.011	0.004	-1.61	N
TP53I3	255.24	139.34	0.011	0.004	-1.83	N
TUBB	1872.45	3205.56	0.011	0.004	1.71	N
VEGF189	538.16	2034.06	0.011	0.005	3.78	N
VHLvar1	204.43	113.02	0.011	0.005	-1.81	N
ACLY	1238.17	2239.27	0.015	0.005	1.81	N
PGD	632.18	385.22	0.015	0.005	-1.64	N
PKM	2049.59	5550.71	0.015	0.005	2.71	N
PRKAA2	221.09	150.08	0.015	0.005	-1.47	N

KLK3	4.56	0.83	0.017	0.005	-5.51	N
FGFR2	180.65	90.97	0.019	0.005	-1.99	N
GLUL	455.17	939.55	0.033	0.005	2.06	N
IDH3G	505.66	346.38	0.033	0.005	-1.46	N
PRDX1	1230.29	852.48	0.033	0.005	-1.44	N
SDHA	1986.26	1377.95	0.033	0.005	-1.44	N
SOD2	9163.55	17941.38	0.033	0.005	1.96	N
PFKFB1	8.07	0.78	0.035	0.005	-10.38	N
AXL	218.97	478.62	0.042	0.005	2.19	N
BCAT1	120.66	313.59	0.042	0.005	2.60	N
PGK1	2722.60	4627.50	0.042	0.006	1.70	N
ACACA	123.02	83.43	0.053	0.006	-1.47	N
D2HGDH	388.76	146.49	0.053	0.006	-2.65	N
GPT	143.71	20.65	0.053	0.006	-6.96	N
HK3	3.31	10.86	0.053	0.006	3.28	N
NAPRT1	71.62	20.78	0.053	0.006	-3.45	N
VHLvar2	141.77	70.81	0.053	0.006	-2.00	N
CHKA	99.87	62.60	0.066	0.006	-1.60	N
PTEN	1115.14	794.30	0.066	0.006	-1.40	N
EGFR	55.85	161.09	0.081	0.006	2.88	N
NQO1	598.09	248.85	0.081	0.006	-2.40	N
PLXND1	204.74	394.56	0.081	0.006	1.93	N
FOLH1	1241.49	747.21	0.119	0.006	-1.66	N
METvar2d10	12.51	26.47	0.119	0.006	2.12	N
CBR1	235.53	116.17	0.142	0.006	-2.03	N
TXN	5316.66	3578.78	0.142	0.007	-1.49	N
AR	155.75	81.78	0.168	0.007	-1.90	N
PRKAA1	364.52	297.91	0.168	0.007	-1.22	N
SLC7A1	189.12	272.49	0.168	0.007	1.44	N
PDCD1	1.11	3.81	0.176	0.007	3.42	N
BRAF	294.71	249.98	0.197	0.007	-1.18	N
GCLC	368.37	303.04	0.197	0.007	-1.22	N
GCLM	153.07	197.06	0.197	0.007	1.29	N
HIF1A	1314.51	792.40	0.197	0.007	-1.66	N
HK1	758.76	1009.56	0.197	0.007	1.33	N
NAMPT	505.30	838.70	0.197	0.007	1.66	N
SLC2A3	1951.53	3590.18	0.197	0.007	1.84	N
SLC9A1	426.40	253.99	0.197	0.007	-1.68	N
CTLA4	33.83	101.18	0.230	0.007	2.99	N
MYC	1200.02	1014.68	0.230	0.007	-1.18	N
TALDO1	1564.43	1426.44	0.230	0.008	-1.10	N

CD274	32.65	47.39	0.266	0.008	1.45	N
GAD1	50.13	32.98	0.266	0.008	-1.52	N
METd14	0.13	0.60	0.278	0.008	4.64	N
FGFR1	317.29	215.07	0.306	0.008	-1.48	N
GPI	1149.93	1375.49	0.306	0.008	1.20	N
METd7-8	0.29	0.93	0.327	0.008	3.25	N
CKB	1222.20	528.16	0.349	0.008	-2.31	N
FASN	53.75	40.37	0.349	0.008	-1.33	N
KRAS	27.69	19.00	0.349	0.008	-1.46	N
PDGFRB	849.70	575.46	0.349	0.008	-1.48	N
EGLN1	262.23	298.60	0.395	0.008	1.14	N
ALK	1.06	2.16	0.407	0.008	2.04	N
METd4-5	0.00	0.27	0.451	0.008	1.00	N
ACTB	6323.07	6890.94	0.497	0.008	1.09	N
ERBB3	808.40	632.80	0.497	0.009	-1.28	N
VEGFR2	880.37	1439.45	0.497	0.009	1.64	N
ADPGK	393.13	388.85	0.553	0.009	-1.01	N
ARHGAP26	938.83	936.52	0.553	0.009	-1.00	N
C12orf5	58.20	71.97	0.553	0.009	1.24	N
TP53	54.38	62.88	0.553	0.009	1.16	N
NOX1	0.14	0.26	0.588	0.009	1.86	N
BCAT2	146.69	142.04	0.612	0.009	-1.03	N
VEGF121b	0.00	0.18	0.644	0.009	1.00	N
CBS	20.40	17.86	0.672	0.009	-1.14	N
EPAS1	2169.06	2001.14	0.672	0.009	-1.08	N
VEGF165b	1.12	15.11	0.718	0.009	13.49	N
MERTK	475.81	554.85	0.735	0.009	1.17	N
RPIA	155.72	105.84	0.735	0.009	-1.47	N
NOX3	0.14	0.15	0.747	0.009	1.03	N
GFPT1	1070.69	1026.17	0.800	0.010	-1.04	N
SLC1A2	4.29	5.20	0.800	0.010	1.21	N
SLC5A1	56.94	296.79	0.866	0.010	5.21	N
G6PD	258.37	266.70	0.933	0.010	1.03	N
EGFRvIII	0.72	1.37	1.000	0.010	1.92	N
PARP1	666.66	597.17	1.000	0.010	-1.12	N
PGK2	0.11	0.62	1.000	0.010	5.89	N
