

SUPPLEMENTARY FIGURE LEGENDS

Supplementary Figure 1.

A) Volcano plot of differentially expressed genes from Pan Cancer Pathway panel of 11 ccRCC tumor samples when comparing PDK2/PDK3 positive versus PDK2/PDK3 negative tumors. B) Volcano plot of differentially expressed genes from Immune Exhaustion panel of 18 ccRCC tumor samples when comparing PDK2/PDK3 positive versus PDK2/PDK3 negative tumor.

Supplementary Figure 2.

In silico validation of correlation analysis of differentially expressed genes in PDK2 and PDK3 high tumors from nCounter Pan Cancer Panel. Correlation analysis of PDK2 and PDK3 mRNA expression with FN1 (A), MMP7 (B), COL1A1 (C) and EPOR (D) mRNA expression is shown. Data are from KIRC, TCGA.

Supplementary Figure 3.

In silico validation of correlation analysis of differentially expressed genes in PDK2 and PDK3 high tumors from nCounter Immune Exhaustion Panel. Correlation analysis of PDK2 and PDK3 mRNA expression with UHRF1 (A), VAV3 (B), RGS16 (C) and PLCG2 (D) mRNA expression is shown. Data are from KIRC, TCGA.

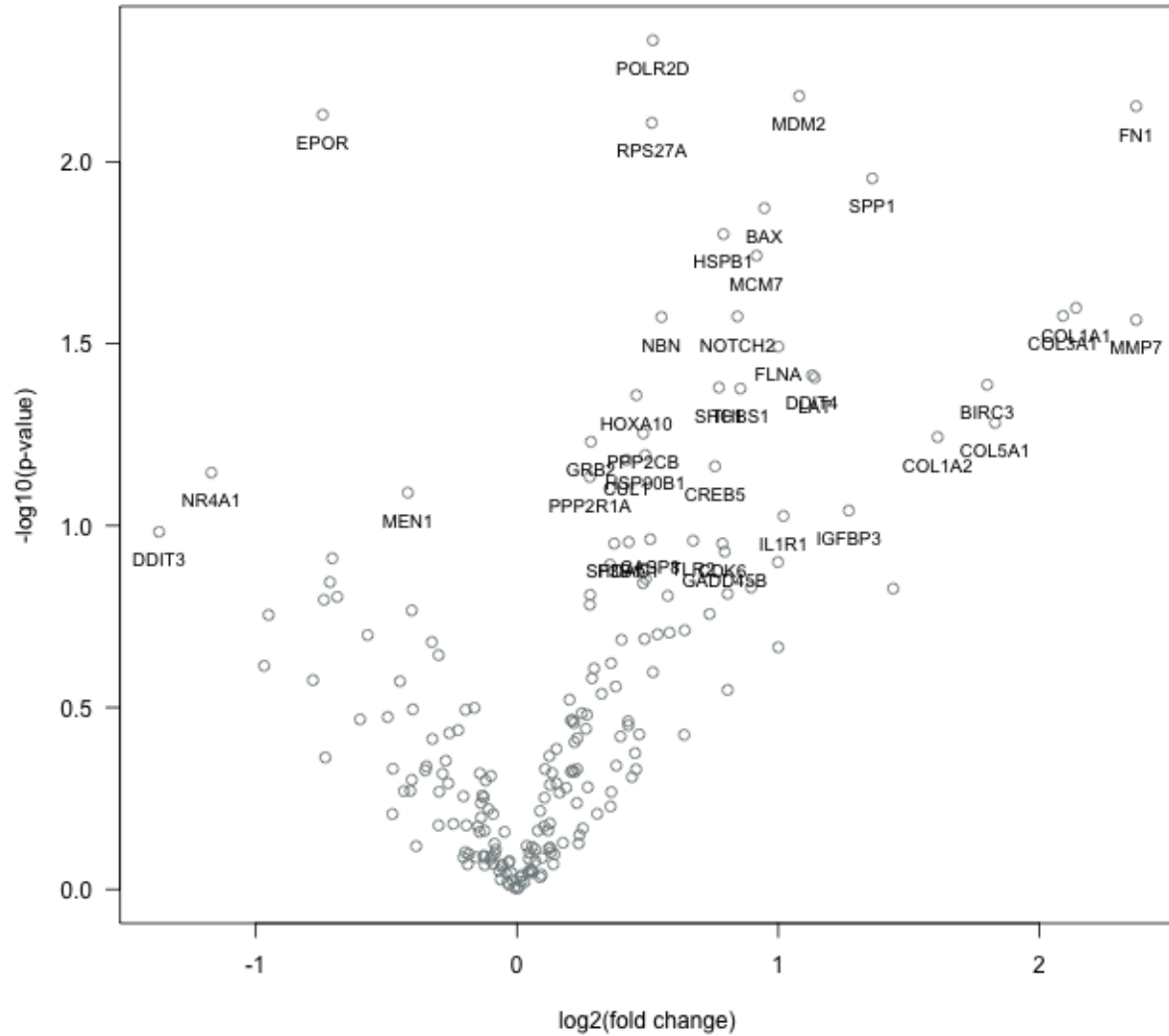
Supplementary Figure 4.

Correlation analysis of PDK1-4 mRNA expression with HIF1 α (*HIF1A*) (A) and HIF2 α (*EPAS1*) (B) mRNA expression. Data are from KIRC, TCGA.

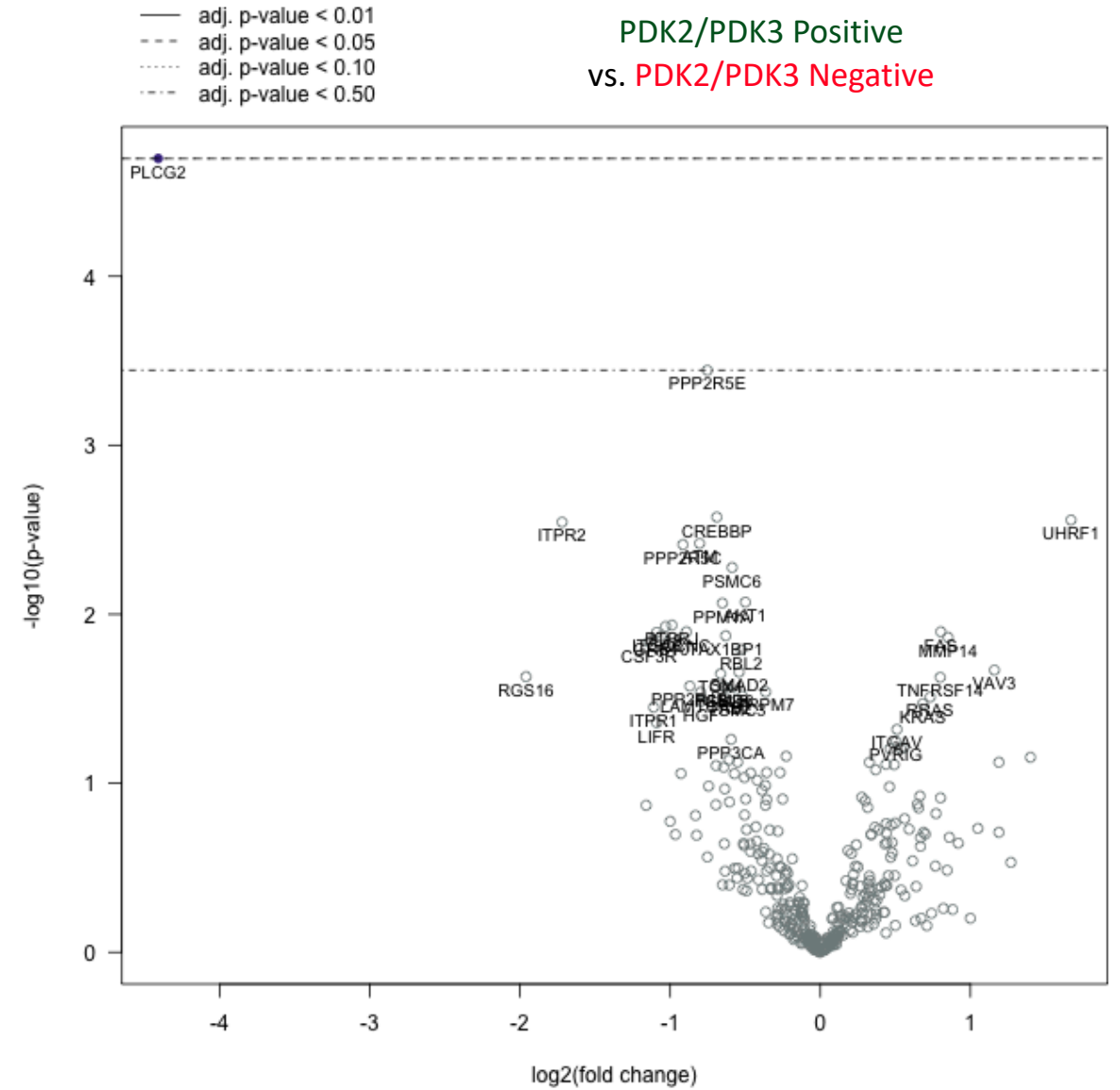
Supplementary Figure 1.

A

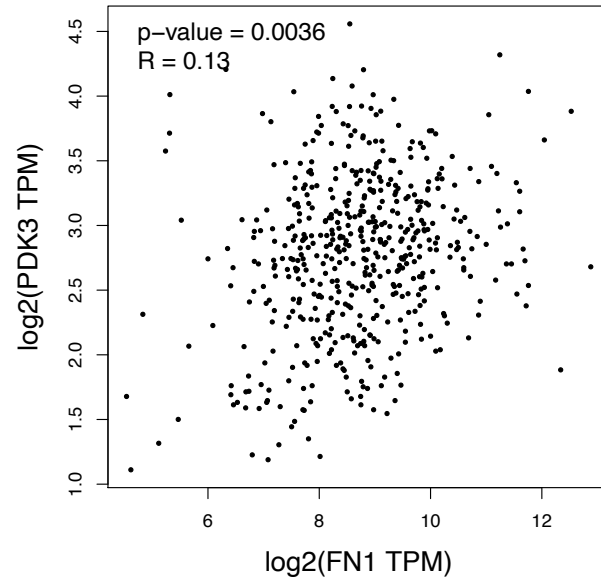
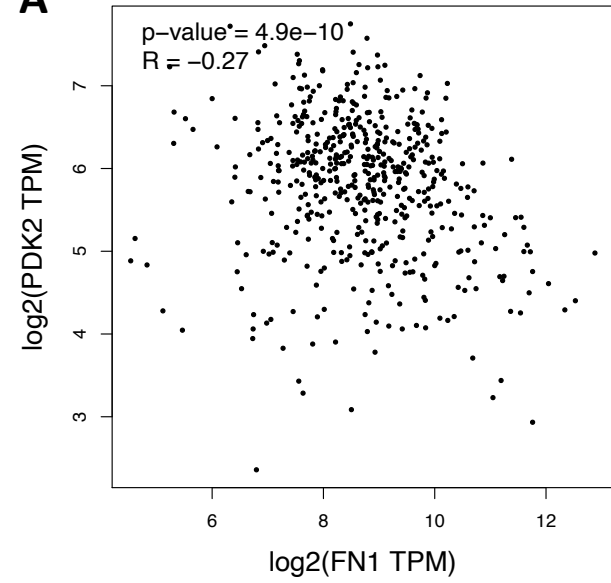
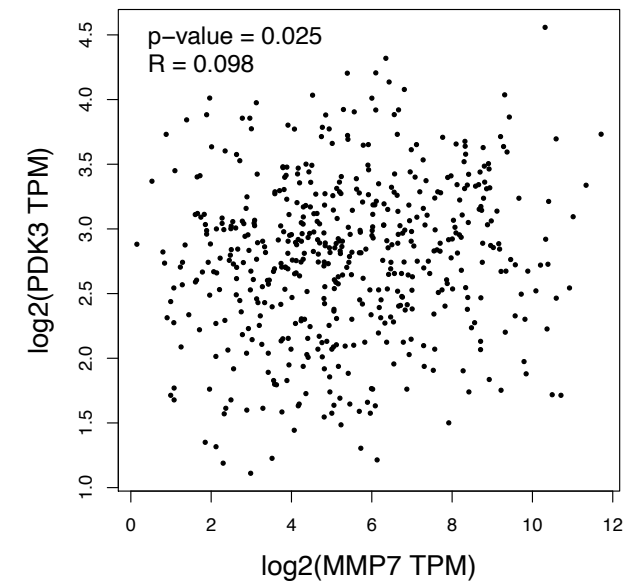
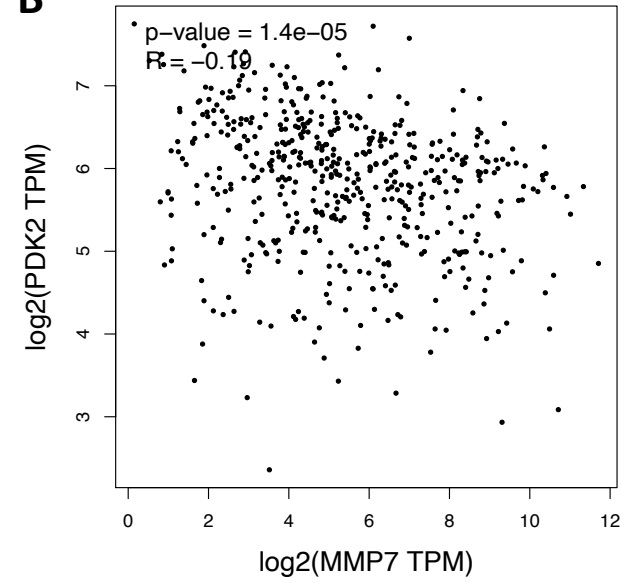
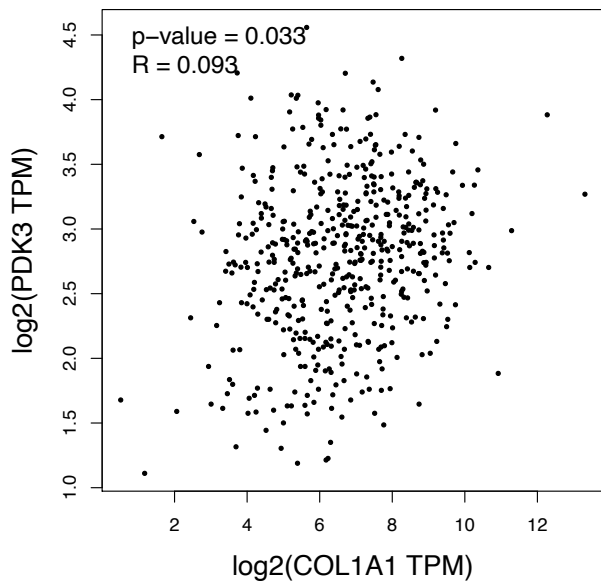
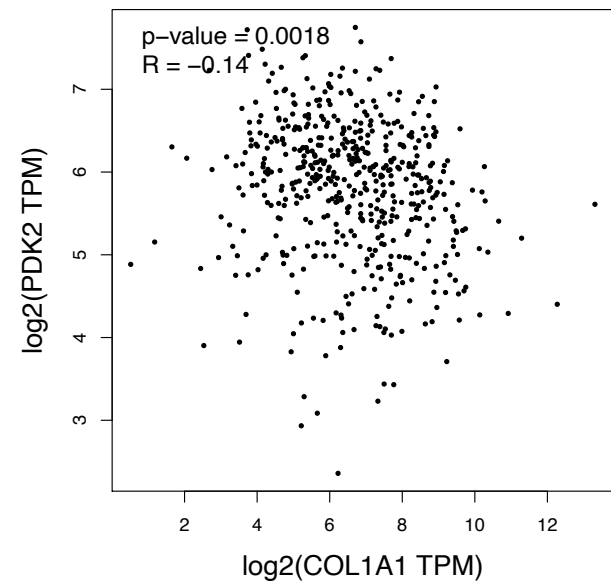
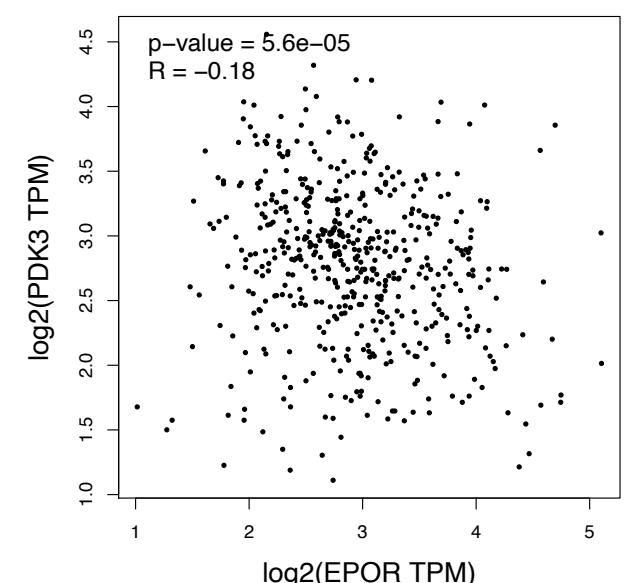
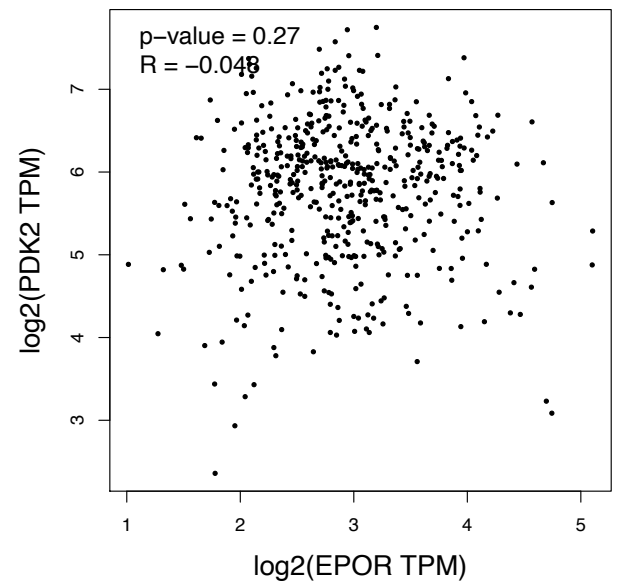
PDK2/PDK3 Positive
vs. PDK2/PDK3 Negative

**B**

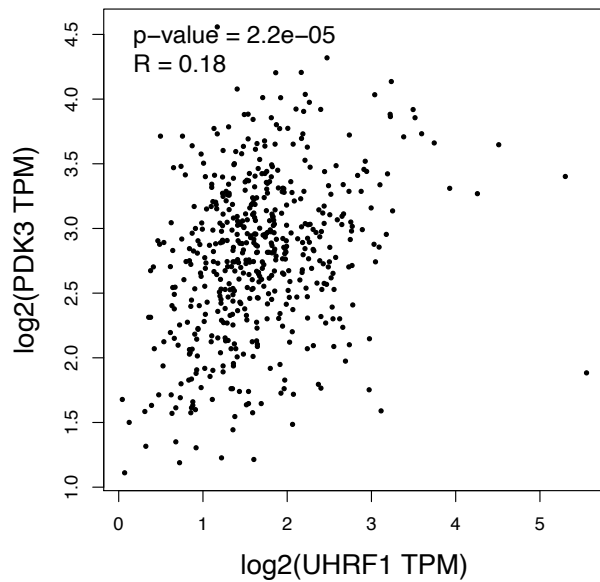
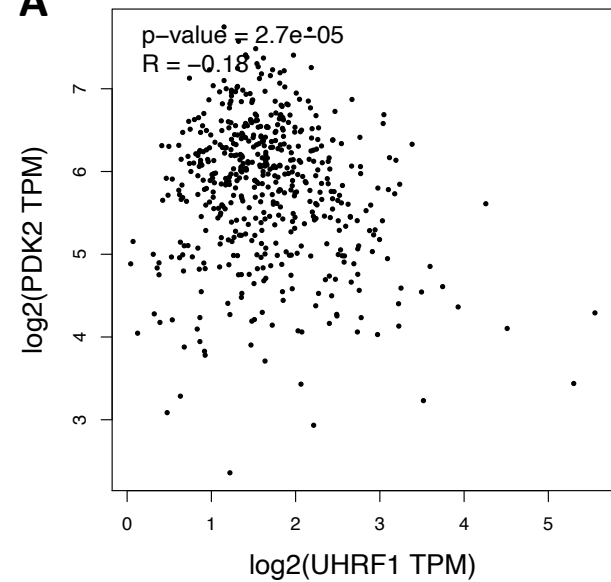
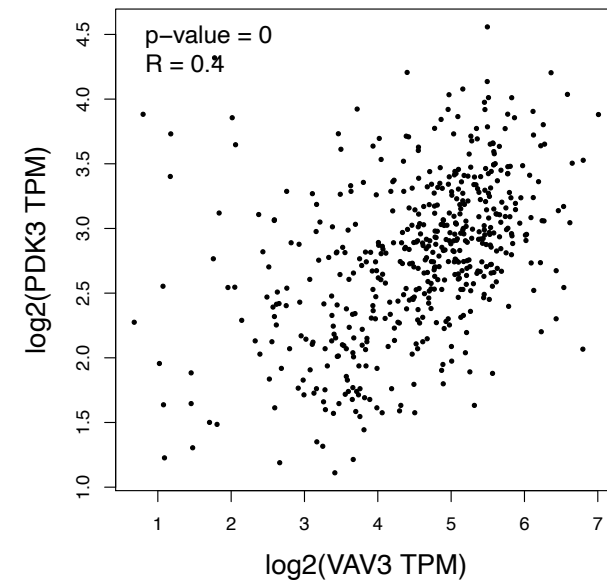
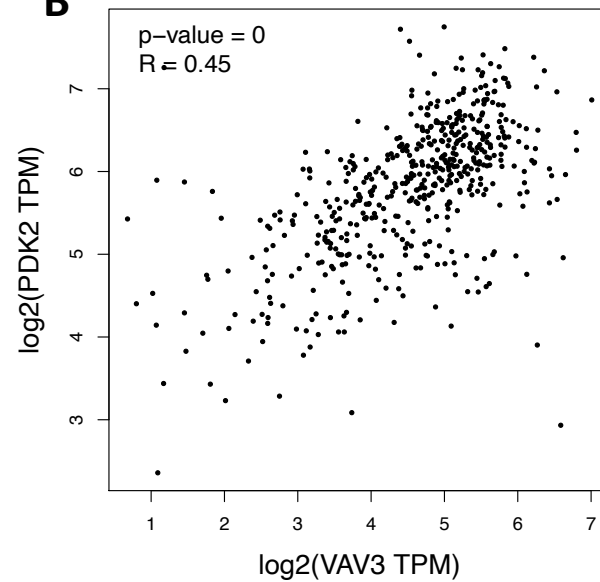
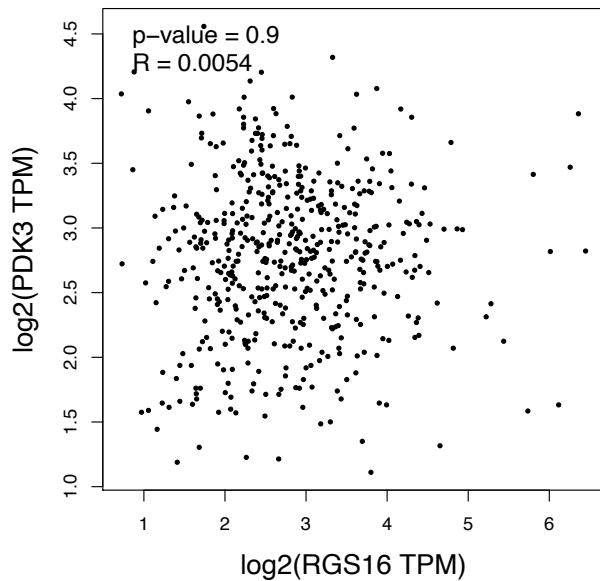
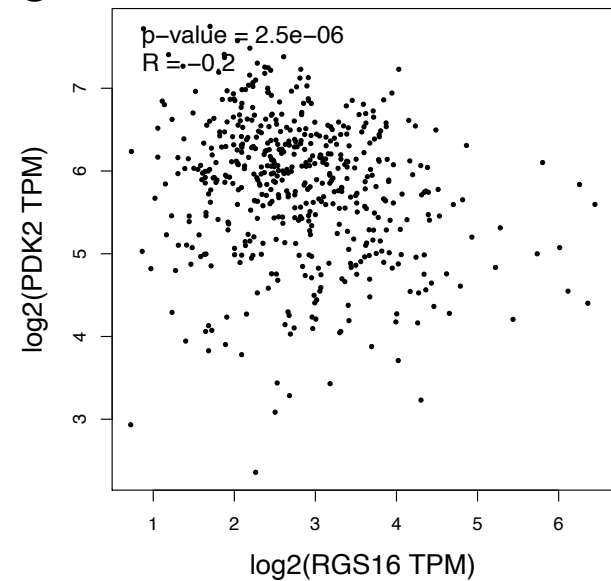
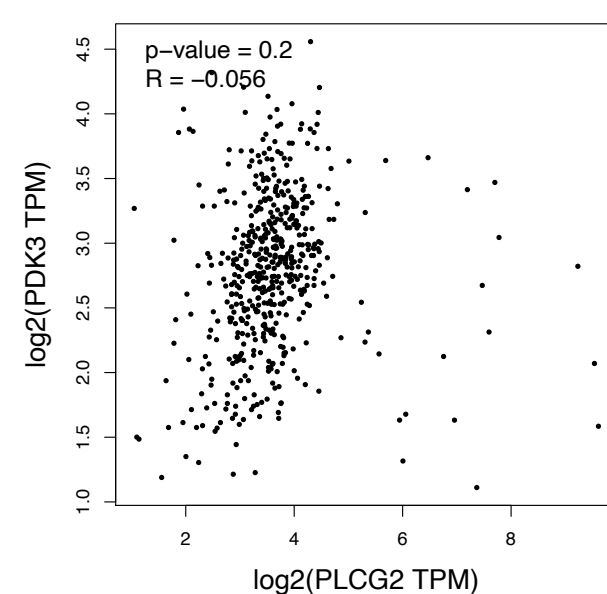
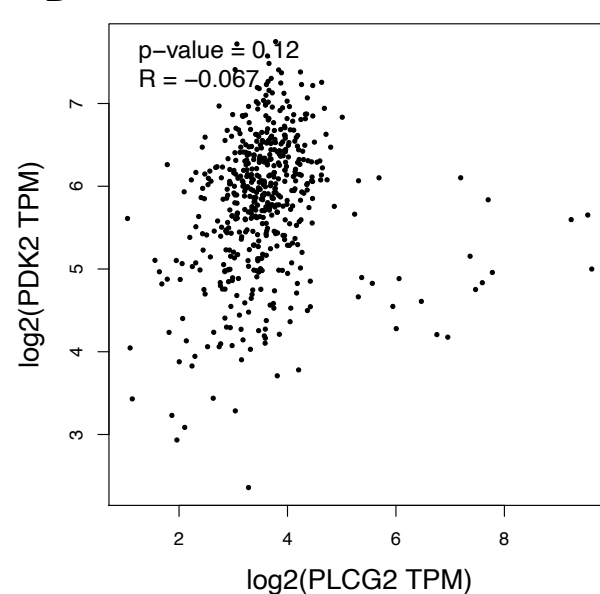
PDK2/PDK3 Positive
vs. PDK2/PDK3 Negative



Supplementary Figure 2.

A**B****C****D**

Supplementary Figure 3.

A**B****C****D**

SUPPLEMENTARY TABLE 1. Differentially Expressed Genes in PDK2/PDK3 positive versus PDK2/PDK3 negative tumors in nCounter PanCancer Pathway Panel

	Log2 fold change	std error (log2)	Lower confidence	Upper confidence	Linear fold change	Lower confidence	Upper confidence	P-value
FN1-mRNA	2.37	0.683	1.03	3.71	5.17	2.05	13.1	0.00703
MMP7-mRNA	2.37	0.9	0.607	4.13	5.17	1.52	17.6	0.0272
COL1A1-mRNA	2.14	0.799	0.575	3.71	4.41	1.49	13.1	0.0252
COL3A1-mRNA	2.09	0.787	0.543	3.63	4.24	1.46	12.4	0.0265
BIRC3-mRNA	1.8	0.757	0.32	3.29	3.49	1.25	9.77	0.041
SPP1-mRNA	1.36	0.427	0.524	2.2	2.57	1.44	4.59	0.0111
LAT-mRNA	1.14	0.475	0.214	2.07	2.21	1.16	4.21	0.0392
DDIT4-mRNA	1.13	0.467	0.215	2.05	2.19	1.16	4.13	0.0386
MDM2-mRNA	1.08	0.306	0.476	1.68	2.11	1.39	3.2	0.00659
BAX-mRNA	0.947	0.308	0.342	1.55	1.93	1.27	2.93	0.0134
MCM7-mRNA	0.917	0.318	0.294	1.54	1.89	1.23	2.91	0.0181
THBS1-mRNA	0.855	0.361	0.148	1.56	1.81	1.11	2.95	0.042
NOTCH2-mRNA	0.844	0.319	0.219	1.47	1.8	1.16	2.77	0.0266
HSPB1-mRNA	0.79	0.266	0.268	1.31	1.73	1.2	2.48	0.0158
SHC1-mRNA	0.773	0.326	0.135	1.41	1.71	1.1	2.66	0.0417
NBN-mRNA	0.553	0.209	0.143	0.963	1.47	1.1	1.95	0.0267
POLR2D-mRNA	0.52	0.139	0.247	0.793	1.43	1.19	1.73	0.00463
RPS27A-mRNA	0.516	0.152	0.219	0.814	1.43	1.16	1.76	0.00781
HOXA10-mRNA	0.457	0.195	0.0748	0.84	1.37	1.05	1.79	0.0438
FLNA-mRNA	1	0.397	0.227	1.78	2.01	1.17	3.44	0.0322
EPOR-mRNA	-0.744	0.216	-1.17	-0.32	0.597	0.445	0.801	0.00742

SUPPLEMENTARY TABLE 2. Differentially Expressed Genes in PDK2/PDK3 positive versus PDK2/PDK3 negative tumors in nCounter Immune Exhaustion Panel

	Log2 fold	std error (log2)	Lower confidence	Upper confidence	Linear fold	Lower confidence	Upper confidence	P-value
UHRF1-mRNA	1.67	0.474	0.744	2.6	3.19	1.68	6.07	0.00277
VAV3-mRNA	1.16	0.455	0.269	2.05	2.24	1.2	4.15	0.0214
MMP14-mRNA	0.851	0.307	0.249	1.45	1.8	1.19	2.74	0.0137
FAS-mRNA	0.803	0.286	0.242	1.36	1.74	1.18	2.57	0.0127
TNFRSF14-mRNA	0.799	0.32	0.173	1.43	1.74	1.13	2.69	0.0236
RRAS-mRNA	0.732	0.309	0.126	1.34	1.66	1.09	2.53	0.0309
KRAS-mRNA	0.683	0.294	0.106	1.26	1.61	1.08	2.4	0.0338
ITGAV-mRNA	0.511	0.239	0.0431	0.978	1.42	1.03	1.97	0.048
TRPM7-mRNA	-0.364	0.152	-0.661	-0.0669	0.777	0.632	0.955	0.0288
AKT1-mRNA	-0.499	0.166	-0.825	-0.173	0.708	0.564	0.887	0.00848
SMC3-mRNA	-0.518	0.218	-0.946	-0.0901	0.698	0.519	0.939	0.0305
RBL2-mRNA	-0.526	0.196	-0.91	-0.143	0.694	0.532	0.906	0.0162
SMAD2-mRNA	-0.541	0.213	-0.96	-0.123	0.687	0.514	0.918	0.022
PSMC6-mRNA	-0.587	0.182	-0.944	-0.23	0.666	0.52	0.852	0.00529
TAB2-mRNA	-0.601	0.252	-1.09	-0.108	0.659	0.468	0.928	0.0296
CBLB-mRNA	-0.618	0.254	-1.12	-0.119	0.652	0.461	0.921	0.0274
TAX1BP1-mRNA	-0.63	0.227	-1.07	-0.186	0.646	0.475	0.879	0.0134
PSMD6-mRNA	-0.639	0.262	-1.15	-0.125	0.642	0.449	0.917	0.0269
PPM1A-mRNA	-0.652	0.218	-1.08	-0.225	0.636	0.473	0.856	0.00859
TOX4-mRNA	-0.664	0.263	-1.18	-0.148	0.631	0.442	0.902	0.0225
CREBBP-mRNA	-0.689	0.194	-1.07	-0.309	0.62	0.477	0.807	0.00266
PPP2R5E-mRNA	-0.752	0.167	-1.08	-0.425	0.594	0.473	0.745	0.00036
HGF-mRNA	-0.794	0.339	-1.46	-0.128	0.577	0.364	0.915	0.0327
LAMTOR3-mRNA	-0.797	0.332	-1.45	-0.146	0.575	0.366	0.904	0.0289
ATM-mRNA	-0.804	0.238	-1.27	-0.338	0.573	0.414	0.791	0.00381
PPP2R1B-mRNA	-0.869	0.356	-1.57	-0.171	0.548	0.338	0.888	0.0266
CCNC-mRNA	-0.892	0.318	-1.52	-0.269	0.539	0.35	0.83	0.0127
PPP2R5C-mRNA	-0.915	0.271	-1.45	-0.383	0.531	0.367	0.767	0.00387
PTPRJ-mRNA	-0.988	0.347	-1.67	-0.308	0.504	0.315	0.808	0.0116
IL18-mRNA	-1.03	0.361	-1.73	-0.318	0.491	0.301	0.802	0.0118
GRB10-mRNA	-1.06	0.382	-1.81	-0.312	0.479	0.285	0.805	0.0135
ITGA6-mRNA	-1.09	0.39	-1.86	-0.328	0.469	0.276	0.797	0.0128
LIFR-mRNA	-1.09	0.498	-2.06	-0.114	0.47	0.239	0.924	0.0438
ITPR1-mRNA	-1.11	0.485	-2.06	-0.163	0.462	0.239	0.893	0.0355
CSF3R-mRNA	-1.14	0.418	-1.96	-0.325	0.452	0.256	0.798	0.0146
ITPR2-mRNA	-1.72	0.49	-2.68	-0.763	0.303	0.156	0.589	0.00285
RGS16-mRNA	-1.96	0.782	-3.49	-0.427	0.257	0.0888	0.744	0.0234
PLCG2-mRNA	-4.41	0.74	-5.86	-2.96	0.0471	0.0172	0.129	2.01e-05

Full blots, uncropped from FIGURE 5A

