

## **Supplemental Material to:**

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**Modifying metabolically sensitive histone marks by inhibiting glutamine metabolism affects gene expression and alters cancer cell phenotype**

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**Supplementary Table 1.** Gene expression in MDA-MB-231 cells treated with 968 compound (fold change < 2.0).

#	GeneBank	Symbol	Description	968 vs control	
				Fold change	p value
1	NM_005157	ABL1	C-abl oncogene 1, non-receptor tyrosine kinase	1.11	0.816
2	NM_000038	APC	Adenomatous polyposis coli	1.33	0.444
3	NM_000051	ATM	Ataxia telangiectasia mutated	1.28	0.475
4	NM_004324	BAX	BCL2-associated X protein	1.15	0.691
5	NM_004327	BCR	Breakpoint cluster region	1.53	0.312
6	NM_001228	CASP8	Caspase 8, apoptosis-related cysteine peptidase	1.29	0.040
7	NM_000075	CDK4	Cyclin-dependent kinase 4	1.07	0.655
8	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)	1.35	0.041
9	NM_001904	CTNNB1	Catenin (cadherin-associated protein), beta 1, 88kDa	1.43	0.012
10	NM_001963	EGF	Epidermal growth factor	1.37	0.185
11	NM_005229	ELK1	ELK1, member of ETS oncogene family	1.31	0.001
12	NM_002012	FHIT	Fragile histidine triad gene	1.93	0.002
13	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog	1.47	0.164
14	NM_012183	FOXD3	Forkhead box D3	1.91	0.237
15	NM_005343	HRAS	V-Ha-ras Harvey rat sarcoma viral oncogene homolog	1.01	0.866
16	NM_000876	IGF2R	Insulin-like growth factor 2 receptor	1.35	0.050
17	NM_004972	JAK2	Janus kinase 2	1.15	0.252
18	NM_002229	JUNB	Jun B proto-oncogene	1.57	0.311
19	NM_005354	JUND	Jun D proto-oncogene	1.22	0.546
20	NM_004985	KRAS	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog	-1.10	0.565
21	NM_021960	MCL1	Myeloid cell leukemia sequence 1 (BCL2-related)	1.12	0.587
22	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)	-1.12	0.175
23	NM_000244	MEN1	Multiple endocrine neoplasia I	1.14	0.503
24	NM_000245	MET	Met proto-oncogene (hepatocyte growth factor receptor)	-1.00	0.984
25	NM_002412	MGMT	O-6-methylguanine-DNA methyltransferase	1.82	0.004
26	NM_000249	MLH1	MutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)	-1.37	0.070
27	NM_000267	NF1	Neurofibromin 1	1.11	0.265
28	NM_003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	1.02	0.897
29	NM_020529	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	1.80	0.033
30	NM_002524	NRAS	Neuroblastoma RAS viral (v-ras) oncogene homolog	-1.14	0.158
31	NM_002645	PIK3C2A	Phosphoinositide-3-kinase, class 2, alpha polypeptide	1.07	0.291
32	NM_006218	PIK3CA	Phosphoinositide-3-kinase, catalytic, alpha polypeptide	1.08	0.444
33	NM_033238	PML	Promyelocytic leukemia	1.15	0.453
34	NM_002737	PRKCA	Protein kinase C, alpha	1.22	0.204

35	NM_002880	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1	1.05	0.344
36	NM_000964	RARA	Retinoic acid receptor, alpha	1.76	0.009
37	NM_002908	REL	V-rel reticuloendotheliosis viral oncogene homolog (avian)	1.15	0.094
38	NM_001754	RUNX1	Runt-related transcription factor 1	1.31	0.164
39	NM_002961	S100A4	S100 calcium binding protein A4	1.88	0.003
40	NM_014631	SH3PXD2 A	SH3 and PX domains 2A	1.31	0.431
41	NM_005359	SMAD4	SMAD family member 4	-1.02	0.768
42	NM_005417	SRC	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)	1.43	0.280
43	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)	1.15	0.170
44	NM_000455	STK11	Serine/threonine kinase 11	1.16	0.898
45	NM_000660	TGFB1	Transforming growth factor, beta 1	1.86	0.018
46	NM_000594	TNF	Tumor necrosis factor	1.18	0.277
47	NM_000546	TP53	Tumor protein p53	-1.15	0.170
48	NM_000368	TSC1	Tuberous sclerosis 1	1.43	0.002
49	NM_000551	VHL	Von Hippel-Lindau tumor suppressor	1.62	0.015
50	NM_016373	WWOX	WW domain containing oxidoreductase	1.29	0.089
51	NM_006297	XRCC1	X-ray repair complementing defective repair in Chinese hamster cells 1	1.53	0.009
52	NM_014943	ZHX2	Zinc fingers and homeoboxes 2	1.50	0.011