

Table S2 – High confidence hits with Enhanced or Inhibited score of P<0.01. Related to Fig 1 and Supplemental Fig S1.

gene	Localization	Enhanced(P-value)	Enhanced(log2 Fold change)	Inhibit (P-value)	Inhibit (log2 Fold change)	Enh/Inh (P-value)	Enh/Inh (Fold change)
VPS16	lyso	0.077	-4.578	0.002	1.338	0.001	-5.368
PSMA5	cyto	0.263	-1.152	0.042	2.597	0.003	-4.701
PREB	ER/lyso	0.045	-1.513	0.023	2.902	0.006	-4.177
ATP5O	mito	0.156	-3.428	0.007	0.637	0.003	-3.862
CORO2A	cyto	0.238	-1.363	0.019	1.567	0.006	-3.796
LRRC34	nuc	0.473	-0.740	0.079	2.325	0.001	-3.783
PRPF4	nuc	0.018	-3.305	0.086	1.501	0.004	-3.662
RNF113A	nuc	0.018	-3.572	0.181	1.242	0.004	-3.607
RPL23	cyto	0.756	-2.475	0.328	3.792	0.000	-3.602
NDUFB2	mito	0.452	-2.580	0.003	1.051	0.001	-3.504
MMP24	golgi/extra	0.033	-3.140	0.096	0.358	0.003	-3.433
PSMB5	cyto	0.003	-2.790	0.140	0.381	0.003	-3.176
HSD17B10	mito	0.000	-2.930	0.039	0.492	0.000	-3.150
PAPSS1	cyto	0.066	-2.277	0.242	0.895	0.008	-3.114
PICK1	mito	0.030	-2.722	0.143	0.313	0.006	-3.041
TARS2	mito	0.035	-2.573	0.026	0.706	0.005	-2.983
DR1	nuc	0.019	-2.757	0.134	0.374	0.003	-2.967
DLD	mito	0.044	-0.800	0.046	1.446	0.004	-2.956
SERINC2	extracell	0.316	-1.540	0.065	0.553	0.009	-2.944
ATF5	cyto	0.183	-0.806	0.392	2.432	0.004	-2.895
RPS6KB2	cyto/nuc	0.099	-2.248	0.231	1.759	0.001	-2.780
MMAA	mito	0.004	-2.450	0.290	0.291	0.004	-2.736
MRPL24	mito	0.009	-2.653	0.350	0.206	0.002	-2.701
CYB5B	mito	0.017	-2.444	0.128	0.197	0.002	-2.647
NDUFS8	mito	0.025	-2.025	0.119	0.940	0.001	-2.514
MAP4	cyto	0.001	-1.838	0.452	0.647	0.001	-2.489
SGOL1	cyto/nuc	0.028	-2.509	0.598	0.969	0.007	-2.474
NDUFB4	mito	0.002	-2.233	0.057	0.379	0.000	-2.449
CCAR1	nuc	0.071	-2.976	0.230	0.047	0.003	-2.418
DDX52	nuc	0.127	-1.969	0.215	0.228	0.008	-2.408
SLC7A9	PM	0.019	-2.104	0.225	0.390	0.010	-2.404
PLD4	ER	0.125	-2.144	0.073	0.601	0.003	-2.238
MGLL	ER	0.032	-2.244	0.252	0.197	0.002	-2.235
VAR52	mito	0.002	-1.740	0.003	0.660	0.000	-2.184
LOC441155	nuc	0.059	-1.866	0.984	0.169	0.004	-2.163
PIK3C3	cyto/lyso	0.115	-1.250	0.046	1.094	0.002	-2.135
ABHD8	extracell	0.018	-2.204	0.988	0.056	0.008	-2.129
DFFA	cyto/nuc	0.058	-2.106	0.221	0.215	0.003	-2.122
ADAM18	PM	0.070	-2.343	0.969	0.045	0.002	-2.113
RACGAP1	cyto	0.009	-1.760	0.750	1.216	0.003	-2.110
OXA1L	mito	0.008	-1.531	0.008	0.772	0.001	-2.107
GNAS	cyto/nuc	0.037	-1.752	0.179	0.296	0.005	-2.102
FGFBP3	extracell	0.096	-1.818	0.047	0.466	0.006	-2.078
NUDCD1	cyto	0.021	-0.913	0.276	0.589	0.002	-2.031
RBM28	nuc	0.011	-1.583	0.210	0.360	0.009	-2.025
MTNR1A	PM	0.146	-1.006	0.057	1.024	0.007	-1.962
SUPV3L1	mito	0.120	-0.848	0.043	0.937	0.007	-1.929
GDI1	cyto	0.071	-1.422	0.117	0.202	0.007	-1.920
NR2C1	nuc	0.030	-1.907	0.801	0.028	0.005	-1.903
FMOD	lyso	0.329	-0.293	0.119	1.756	0.008	-1.870
NDUFA8	mito	0.003	-1.696	0.314	0.422	0.000	-1.853
RPL10L	cyto	0.265	-1.688	0.508	0.285	0.006	-1.844
LEO1	nuc	0.102	-1.726	0.184	0.414	0.005	-1.801
HLTF	nuc	0.142	-1.838	0.534	0.396	0.003	-1.773
MRPL33	mito	0.001	-1.516	0.418	0.262	0.001	-1.771
KCNN3	PM	0.297	-1.476	0.095	0.464	0.009	-1.728
MRPL34	mito	0.012	-1.232	0.013	0.521	0.001	-1.698
CUL9	cyto	0.031	-2.430	0.200	0.668	0.007	-1.675
GDAP2	lyso	0.080	-1.519	0.338	0.477	0.007	-1.635
RIMBP2	PM	0.705	-0.817	0.003	0.836	0.006	-1.551
MS4A3	PM	0.456	-1.309	0.441	0.496	0.009	-1.541
ENPP3	PM	0.014	-1.139	0.089	0.521	0.003	-1.527
SLMO2	mito	0.059	-1.359	0.287	0.148	0.007	-1.513
ARL6IP1	ER	0.218	-0.601	0.002	0.669	0.006	-1.493

NDUFS2	mito	0.068	-1.181	0.024	0.577	0.002	-1.485
CAPN3	cyto	0.022	-1.076	0.024	0.605	0.004	-1.474
ARSA	lyso/ER	0.007	-1.156	0.197	0.292	0.003	-1.454
MRPL16	mito	0.005	-1.000	0.008	0.552	0.001	-1.446
ZNF711	nuc	0.009	-1.308	0.949	0.216	0.008	-1.443
TOR3A	ER	0.005	-1.319	0.642	0.057	0.003	-1.413
AARS2	mito	0.003	-1.298	0.376	0.144	0.001	-1.410
ANAPC10	cyto/nuc	0.229	-0.551	0.706	0.501	0.006	-1.408
COA3	mito	0.021	-0.827	0.204	0.540	0.007	-1.374
MAGEA11	cyto	0.005	-2.550	0.055	1.000	0.004	-1.342
BCS1L	mito	0.201	-0.613	0.504	0.849	0.004	-1.327
EI24	ER/golgi	0.504	-0.567	0.002	0.765	0.005	-1.322
MRPL30	mito	0.005	-0.976	0.090	0.512	0.001	-1.307
CHMP2A	endosome	0.255	-0.076	0.483	1.185	0.009	-1.274
ZNF333	nuc	0.067	-0.822	0.042	0.635	0.004	-1.249
RNF146	cyto	0.013	-1.152	0.390	0.181	0.006	-1.245
ATG10	lyso/cyto	0.143	-0.541	0.023	0.876	0.006	-1.240
POLG2	mito	0.100	-0.877	0.009	0.675	0.001	-1.229
SULT1C2	cyto	0.019	-0.804	0.136	0.696	0.001	-1.217
NDUFS5	mito	0.020	-1.036	0.048	0.458	0.001	-1.214
KCNK13	PM	0.012	-0.702	0.047	0.563	0.002	-1.201
CHAF1A	nuc	0.099	-1.101	0.170	0.731	0.003	-1.195
TECPR1	lyso	0.060	-0.795	0.454	0.507	0.009	-1.187
MRPL41	mito	0.053	-1.291	0.248	0.337	0.001	-1.175
TRMT10C	mito	0.196	-0.640	0.041	0.716	0.009	-1.168
WBSCR16	mito	0.005	-0.784	0.272	0.371	0.002	-1.165
ZNF414	nuc	0.030	-0.745	0.211	0.331	0.007	-1.163
GP9	PM	0.835	-0.388	0.011	1.073	0.003	-1.142
GRSF1	mito	0.012	-1.033	0.523	0.184	0.005	-1.138
ALYREF	cyto/nuc	0.031	-1.353	0.798	0.191	0.003	-1.118
COA4	mito	0.082	-1.005	0.184	0.334	0.006	-1.100
MRPL55	mito	0.088	-0.616	0.007	0.571	0.002	-1.039
CNTF	extracell	0.004	-0.881	0.479	0.165	0.003	-1.023
ETV1	nuc	0.027	-1.217	0.784	0.210	0.002	-1.018
MRPL17	mito	0.065	-1.030	0.921	0.152	0.008	-0.991
WIPI1	endosome	0.012	-0.993	0.651	0.242	0.002	-0.991
PTCD1	mito	0.010	-0.835	0.412	0.184	0.003	-0.980
C16orf45	nuc	0.017	-0.900	0.611	0.197	0.004	-0.979
PRUNE2	cyto	0.404	-0.392	0.079	0.931	0.009	-0.957
MRPL22	mito	0.149	-0.378	0.024	0.641	0.008	-0.950
ATP5J2	mito	0.028	-0.771	0.276	0.184	0.007	-0.949
SLC26A4	PM	0.004	-0.823	0.881	0.009	0.008	-0.949
DDRGK1	ER	0.014	-0.794	0.578	0.166	0.006	-0.944
POLE2	nuc	0.136	-0.715	0.117	0.388	0.009	-0.929
ZDHHC2	ER/golgi	0.716	-0.239	0.003	0.777	0.005	-0.924
EPG5	nuc	0.188	-0.368	0.066	0.708	0.005	-0.914
TMEM74	lyso	0.025	-0.566	0.535	0.182	0.005	-0.905
WDFY3	cyto/nuc	0.118	-0.650	0.430	0.456	0.008	-0.902
KLK6	mito/nuc	0.119	-1.015	0.922	0.318	0.006	-0.868
RNF183	ER	0.031	-0.635	0.129	0.445	0.004	-0.866
TRAPPC12	cyto/nuc	0.116	-0.533	0.044	0.449	0.008	-0.838
LIPT2	mito	0.052	-0.848	0.473	0.106	0.007	-0.829
ASB16	cyto	0.320	-0.103	0.103	0.739	0.009	-0.821
FZD6	PM	0.196	-0.559	0.202	0.469	0.006	-0.808
RAB5C	lyso	0.073	-0.573	0.100	0.263	0.009	-0.796
CDK5RAP3	cyto	0.043	-0.764	0.308	0.208	0.004	-0.785
DCLK2	cyto	0.361	-0.278	0.175	0.580	0.010	-0.782
PIGF	ER	0.181	-0.254	0.133	0.461	0.008	-0.758
KIAA0391	mito	0.030	-0.609	0.362	0.210	0.009	-0.700
CEACAM5	PM	0.084	-0.827	0.358	0.015	0.007	-0.679
LRR1	nuc	0.282	-0.199	0.129	0.523	0.009	-0.594
LILRB4	PM	0.060	0.810	0.140	-0.358	0.010	0.616
SCUBE1	PM	0.039	0.637	0.693	-0.112	0.010	0.620
TMC4	PM	0.168	0.506	0.184	-0.485	0.010	0.649
LOH12CR1	lyso	0.014	0.813	0.893	-0.014	0.009	0.726
PNISR	cyto/nuc	0.007	0.645	0.536	-0.255	0.002	0.748
C1orf194	nuc	0.024	0.884	0.846	-0.170	0.009	0.751
FUCA2	ER/lyso	0.100	0.485	0.064	-0.425	0.005	0.754

WDR64	cyto	0.030	0.822	0.812	-0.119	0.009	0.767
UQCRC2	mito	0.016	0.779	0.927	-0.008	0.010	0.770
DOCK2	cyto	0.552	0.176	0.029	-0.787	0.005	0.771
CSTB	cyto	0.420	0.265	0.073	-0.776	0.008	0.795
C10orf32	lyso	0.462	0.377	0.045	-0.705	0.007	0.818
ITIH3	extracell	0.146	0.619	0.056	-0.599	0.003	0.824
FOXK2	nuc	0.008	0.658	0.710	-0.180	0.007	0.832
OR5A2	PM	0.025	0.470	0.047	-0.372	0.002	0.835
LYVE1	extracell	0.226	0.399	0.008	-0.520	0.005	0.841
ZPBP2	nuc	0.320	0.092	0.010	-0.669	0.006	0.842
DMXL2	extracell	0.794	0.028	0.010	-0.904	0.008	0.848
SHOC2	cyto/nuc	0.141	0.498	0.037	-0.687	0.001	0.856
COG7	golgi/nuc	0.699	0.046	0.056	-1.041	0.006	0.858
THOC6	nuc	0.974	0.188	0.012	-0.898	0.009	0.867
CRYGS	cyto/nuc	0.054	0.444	0.158	-0.646	0.004	0.871
TMTC4	PM	0.015	0.625	0.335	-0.477	0.003	0.871
TRABD2B	extracell	0.051	0.797	0.864	-0.449	0.006	0.873
PRSS33	extracell	0.015	0.780	0.714	-0.124	0.010	0.876
TC2N	nuc	0.074	0.491	0.128	-0.536	0.007	0.879
SERPINA3	lyso	0.031	0.677	0.277	-0.443	0.002	0.889
S100A6	cyto	0.062	0.664	0.215	-0.392	0.010	0.903
OR7E24	PM	0.497	0.239	0.128	-0.881	0.008	0.919
CBLB	cyto/nuc	0.590	0.182	0.007	-1.475	0.003	0.924
IRS1	cyto	0.460	0.229	0.163	-1.056	0.007	0.926
C21orf91	MTs	0.159	0.418	0.184	-0.656	0.007	0.928
TMEM170A	ER	0.110	0.665	0.180	-0.403	0.009	0.941
NLRP1	cyto	0.118	0.411	0.021	-0.621	0.004	0.945
UBE2O	nuc	0.017	0.818	0.380	-0.264	0.006	0.979
CUL3	cyto	0.013	1.047	0.888	-0.058	0.004	0.993
KRTAP2-3	cyto	0.056	0.740	0.244	-0.278	0.009	0.998
C17orf85	nuc	0.337	0.416	0.062	-0.856	0.009	1.018
NOL11	nuc	0.361	0.448	0.062	-0.921	0.001	1.024
ITPK1	cyto	0.599	0.022	0.008	-0.948	0.005	1.026
SEMA4G	PM	0.072	0.648	0.033	-0.483	0.007	1.052
LACTBL1	cyto	0.105	0.651	0.263	-0.500	0.009	1.057
PTK2	cyto	0.010	0.940	0.436	-0.188	0.005	1.068
NMD3	nuc	0.025	1.211	0.841	-0.051	0.005	1.069
ASCC3	cyto/nuc	0.038	0.815	0.121	-0.625	0.002	1.073
MED21	nuc	0.611	0.160	0.002	-1.058	0.001	1.074
CDR2	nuc	0.499	0.451	0.007	-0.620	0.007	1.114
E2F8	cyto	0.476	0.256	0.005	-0.866	0.004	1.117
GPR133	PM	0.039	0.651	0.032	-0.743	0.001	1.121
SCG5	extracell	0.230	0.229	0.003	-0.722	0.003	1.122
UBE2J1	ER	0.573	0.139	0.018	-1.086	0.002	1.144
TWIST2	nuc	0.024	0.776	0.248	-0.509	0.006	1.187
PFDN5	nuc	0.002	0.950	0.791	-0.279	0.006	1.192
LY96	endosome	0.073	0.750	0.073	-0.822	0.005	1.214
SCD	ER	0.351	0.334	0.091	-1.164	0.008	1.228
BIK	mito	0.052	1.192	0.383	-0.248	0.008	1.285
C17orf82	nuc	0.231	0.424	0.117	-1.260	0.004	1.362
CALCOCO2	cyto/nuc	0.175	0.707	0.030	-1.057	0.009	1.398
GCA	cyto	0.216	0.484	0.017	-1.217	0.001	1.410
OR56A1	PM	0.012	0.685	0.305	-0.734	0.007	1.476
CCDC130	nuc	0.012	0.935	0.188	-0.734	0.006	1.494
CHERP	ER	0.062	0.909	0.037	-1.199	0.000	1.497
INTS7	cyto/nuc	0.211	0.391	0.022	-1.201	0.008	1.513
TPTE2	ER	0.195	0.546	0.151	-0.701	0.003	1.545
ABCB9	lyso	0.276	0.222	0.194	-0.287	0.007	1.633
NUCKS1	nuc	0.250	0.442	0.143	-1.325	0.008	1.709
JUNB	nuc	0.004	0.764	0.055	-1.155	0.001	1.783
FAP	PM	0.013	1.166	0.812	-1.038	0.001	1.855
MMS22L	nuc	0.180	0.307	0.015	-1.753	0.002	1.923
RPL7A	cyto	0.428	0.927	0.004	-2.293	0.004	2.152
CCNC	nuc	0.006	1.945	0.576	-0.172	0.002	2.172
RAF1	mito	0.011	1.290	0.059	-1.414	0.002	3.005
SNW1	nuc	0.017	3.081	0.209	-0.269	0.003	3.204
RSRC2	nuc	0.017	0.661	0.019	-2.794	0.002	3.355
RPS5	cyto	0.271	1.632	0.034	-1.594	0.010	3.619