

Table S1 Co-expressed genes of *ATP5A1*

Correlated Gene	Cytoband	Spearman's Correlation	P-Value
MIPEP	13q12.12	0.676765476	1.76E-48
TIMM21	18q22.3	0.656595967	8.70E-45
SUCLG1	2p11.2	0.654954058	1.69E-44
ATP5F1B	12q13.3	0.651930891	5.67E-44
UQCRCF1	19q12	0.651454022	6.86E-44
GOT1	10q24.2	0.643361778	1.63E-42
ACO2	22q13.2	0.638734441	9.58E-42
ACAT1	11q22.3	0.636800287	1.99E-41
SLC25A4	4q35.1	0.626788147	8.05E-40
SDHC	1q23.3	0.620547653	7.55E-39
AFG3L2	18p11.21	0.619122693	1.25E-38
PCCA	13q32.3	0.618453273	1.58E-38
SDHD	11q23.1	0.609221161	3.88E-37
OGDHL	10q11.23	0.603573873	2.60E-36
RUNX1	21q22.12	-0.598505209	1.39E-35
IMPA2	18p11.21	0.591705627	1.26E-34
NDUFS2	1q23.3	0.588985023	3.01E-34
MRPL49	11q13.1	0.583981017	1.45E-33
NEDD4L	18q21.31	0.583961247	1.46E-33
GHITM	10q23.1	0.583135781	1.89E-33
OGDH	7p13	0.58000164	4.98E-33
FH	1q43	0.575869323	1.76E-32
ACAA2	18q21.1	0.575021571	2.27E-32
HADHB	2p23.3	0.575019095	2.28E-32
IVD	15q15.1	0.574670215	2.53E-32
FECH	18q21.31	0.57435958	2.78E-32
NARS1	18q21.31	0.571829827	5.94E-32
ATP5PB	1p13.2	0.570718627	8.27E-32
PLEKHG2	19q13.2	-0.569799102	1.09E-31
BAG1	9p13.3	0.566092115	3.25E-31
TMX2	11q12.1	0.564672108	4.92E-31
AUH	9q22.31	0.564369177	5.38E-31
MDH1	2p15	0.563978101	6.03E-31
ETFA	15q24.2-q24.3	0.563033087	7.93E-31
MICU2	13q12.11	0.560738404	1.54E-30
SKIC8	15q25.1	0.559713775	2.07E-30
CYFIP2	5q33.3	0.55760894	3.77E-30
HDHD2	18q21.1	0.554781856	8.42E-30
PHB1	17q21.33	0.55286907	1.44E-29
UQCRC2	16p12.2	0.552660138	1.53E-29
SUCLA2	13q14.2	0.551388982	2.18E-29
MRPL44	2q36.1	0.551193456	2.30E-29
PPP1R18	6p21.33	-0.550822564	2.55E-29
ADAM19	5q33.3	-0.550209548	3.03E-29
BAZ1A	14q13.1-q13.2	-0.549706764	3.48E-29
RUNX2	6p21.1	-0.549238297	3.97E-29
CLYBL	13q32.3	0.546045275	9.56E-29
NDUFS1	2q33.3	0.545780589	1.03E-28
NDUFA10	2q37.3	0.541075387	3.69E-28
MRPL46	15q25.3	0.540756772	4.02E-28
TTC13	1q42.2	-0.540659097	4.13E-28
DLD	7q31.1	0.540289857	4.56E-28
GPCPD1	20p12.3	-0.538138247	8.12E-28
MTFMT	15q22.31	0.536080635	1.40E-27
IFI16	1q23.1	-0.532612296	3.50E-27
TMEM171	5q13.2	0.532290555	3.81E-27
DLAT	11q23.1	0.531189987	5.08E-27
SHC1	1q21.3	-0.530168798	6.63E-27
GRHPR	9p13.2	0.529519738	7.84E-27
CRYL1	13q12.11	0.527306185	1.39E-26
XAF1	17p13.2	-0.526497991	1.71E-26
NIPSNAP1	22q12.2	0.524835685	2.62E-26
SDHB	1p36.13	0.524791663	2.65E-26
CAT	11p13	0.5244769	2.87E-26
ECI2	6p25.2	0.523389163	3.79E-26
MTCH2	11p11.2	0.522842282	4.35E-26
ABL2	1q25.2	-0.522667017	4.55E-26
PHYH	10p13	0.522414712	4.85E-26
KCND1	Xp11.23	-0.52183086	5.62E-26
ATP5MC3	2q31.1	0.52165642	5.87E-26
SLC25A11	17p13.2	0.519139972	1.11E-25
NAV1	1q32.1	-0.518711026	1.23E-25
TRAM2	6p12.2	-0.518531358	1.29E-25
HIBCH	2q32.2	0.517648428	1.61E-25
NLRP1	17p13	-0.517531768	1.65E-25
IER3IP1	18q21.1	0.517170231	1.81E-25
TPM4	19p13.12-p13.11	-0.516960573	1.91E-25
COL6A2	21q22.3	-0.514923973	3.16E-25
BCL9L	11q23.3	-0.514823169	3.24E-25
P4HA3	11q13.4	-0.513176271	4.86E-25
ATPAF1	1p33	0.512891499	5.21E-25
AIFM1	Xq26.1	0.511900198	6.65E-25
MYO9B	19p13.11	-0.51108877	8.10E-25
MMP19	12q13.2	-0.510701267	8.91E-25
JAK3	19p13.11	-0.51042045	9.54E-25
SNRPN	15q11.2	0.510061115	1.04E-24
PLXNB3	Xq28	-0.509467709	1.20E-24
ILVBL	19p13.12	0.508574145	1.49E-24
COLGALT1	19p13.11	-0.508295701	1.60E-24
MKKS	20p12.2	0.50787181	1.77E-24
NOD1	7p14.3	-0.507847873	1.78E-24
ITGA5	12q13.13	-0.506338169	2.56E-24
PPARGC1A	4p15.2	0.504758855	3.74E-24
MRPL35	2p11.2	0.504748674	3.75E-24
HADHA	2p23.3	0.503877575	4.61E-24
NUMBL	19q13.2	-0.503609862	4.92E-24
MAP4K4	2q11.2	-0.503477794	5.07E-24
TET3	2p13.1	-0.502575879	6.29E-24
PRDX3	10q26.11	0.501861335	7.45E-24
PANK1	10q23.31	0.501488243	8.13E-24
HIBADH	7p15.2	0.501487692	8.13E-24
CLEC2B	12p13.31	-0.501184211	8.74E-24
WDR72	15q21.3	0.50112533	8.86E-24
AXL	19q13.2	-0.500594031	1.00E-23
IL4R	16p12.1	-0.500110607	1.13E-23

*ATP5A1*, adenosine triphosphate synthase F1 subunit  $\alpha$ .