A list of 1,926 host factors related to influenza virus infection verified *in vitro.*

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
AARS	16	↑
ABCA2	20	↓
ABL2	27	↑
ACACA	31	↑
ACADSB	36	↑
ACP2	53	↑
ACTB	60	↓
ACTC1	70	↑
ACTG1	71	↓
ACTN1	87	↓
ACTN2	88	↑
ACVR2A	92	↑
ADAM8	101	↑
ADCY1	107	↑
ADCY7	113	↑
ADRA1B	147	↑
ADRBK2	157	↑
ADSL	158	↑
AP2A2	161	↑
JAG1	182	↑
AHCY	191	↑
AKT1	207	↑
ABCD1	215	↑
ALDOA	226	↑
ALK	238	↑
AMHR2	269	↑
ANPEP	290	↑
SLC25A5	292	↑
ANXA1	301	↓
BIRC4	331	↑
APOA1	335	↑
APOB	338	↑
APP	351	↑
AQP4	361	↑
ABCC6	368	↑
ARAF	369	↑
ARCN1	372	↑
TRIM23	373	↑
ASPA	443	↑
ZFHX3	463	↑
ATF1	466	↑
ATF3	467	↑
ATF4	468	↑
ATP1A2	477	↑
ATP5A1	498	↓

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
ATP5B	506	↑
ATP5C1	509	↑
ATP5F1	515	↑
ATP6V1A	523	↑
ATP6V1B2	526	↑
ATP6V0C	527	↑
ATP6V1C1	528	↑
ATP6V1E1	529	↑
ATP6V0B	533	↑
ATP6V0A1	535	↓
ATP6AP1	537	↑
ATP5O	539	↑
ATP7B	540	↑
B2M	567	↑
BACH1	571	↑
BCL2	596	↓
BCL2A1	597	↑
BCL3	602	↑
BCL6	604	↑
OPN1SW	611	↑
BLM	641	↑
BMPR1B	658	↑
BMPR2	659	↑
BMX	660	↑
BNIP3L	665	↑
BYSL	705	↑
MRPL49	740	↑
TMEM258	746	↑
CACNA1A	773	↑
CAD	790	↑
CALM	805	↑
CAMK2B	816	↑
CAMK2G	818	↑
CAPNS1	826	↑
CAPN6	827	↑
CAPZA1	829	↑
CAPZB	832	↑
CASQ2	845	↑
CAV1	857	↑
RUNX1	861	↑
SERPINH1	871	↑
CCT6A	908	↓
CD8B	926	↑
CD47	961	↑
CD48	962	↑
CD58	965	↑
CD81	975	↑
CDC2	983	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
CDK4	1019	↑
CDKN1B	1027	↑
CEL	1056	↑
CGA	1081	↑
RCC1	1104	↑
CHKA	1119	↑
CHM	1121	↑
CHRM1	1128	↑
LYST	1130	↓
CHUK	1147	↑
CIRBP	1153	↑
CISH	1154	↑
CKS1B	1163	↑
AP2M1	1173	↑
AP2S1	1175	↑
CLU	1191	↑
CLK1	1195	↑
CLK3	1198	↑
CLN5	1203	↑
CLNS1A	1207	↑
CLPTM1	1209	↑
CLTC	1213	↑
CNGB1	1258	↑
PLK3	1263	↑
COL1A1	1277	↑
COL2A1	1280	↑
COL15A1	1306	↑
COPA	1314	↑
COPB1	1315	↑
KLF6	1316	↑
COX6A1	1337	↑
COX6A2	1339	↑
CPS1	1373	↑
CREB1	1385	↑
ATF2	1386	↑
CRHR1	1394	↑
CRY2	1408	↑
CRYAA	1409	↑
CS	1431	↑
CSE1L	1434	↑
CSF2	1437	↑
CSK	1445	↑
CSNK1A1	1452	↑
CSNK1D	1453	↑
CSNK1G2	1455	↑
CSRP1	1465	↑
CTBP1	1487	↑
CTGF	1490	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
CTNNB1	1499	↑
CTRB1	1504	↓
CTSD	1509	↑
CTSG	1511	↑
CTSW	1521	↑
CYC1	1537	↑
CYLC1	1538	↓
CYLD	1540	↑
CYP2J2	1573	↑
CYP17A1	1586	↑
DAD1	1603	↑
DAPK3	1613	↑
DARS	1615	↑
DBT	1629	↑
GADD45A	1647	↑
DDX3X	1654	↑
DHX8	1659	↑
DHX15	1665	↑
DHCR7	1717	↑
DIO1	1733	↑
DLG2	1740	↑
DLX2	1746	↑
DMD	1756	↑
DNASE1L3	1776	↑
DYNC1I1	1780	↑
DNMT1	1786	↑
TRDMT1	1787	↑
DPAGT1	1798	↑
DPYD	1806	↑
DSC3	1825	↑
DSP	1832	↑
DUSP3	1845	↑
DUSP5	1847	↑
DYRK1A	1859	↑
E2F1	1869	↑
EEF1A1	1915	↑
EEF1A2	1917	↑
EEF1G	1937	↑
EEF2	1938	↑
EIF1AX	1964	↑
EIF2S1	1965	↑
EIF4A2	1974	↑
EIF4B	1975	↑
EIF5	1983	↑
ELK1	2002	↑
MARK2	2011	↑
EMP2	2013	↑
EMX1	2016	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
ENG	2022	↑
EP300	2033	↑
EPHA4	2043	↑
EPHA7	2045	↑
EPHB2	2048	↑
EPHB4	2050	↑
EPHB6	2051	↑
EPRS	2058	↑
EZH1	2145	↑
F7	2155	↑
F13A1	2162	↑
ACSL4	2182	↑
BPTF	2186	↑
FASN	2194	↑
FAU	2197	↑
FCGR2A	2212	↑
FER	2241	↑
FGFR1	2260	↑
FGFR2	2263	↑
FGFR4	2264	↑
FHIT	2272	↑
FKBP5	2289	↑
FOXO3	2309	↑
FLT3	2322	↑
FLT4	2324	↑
AFF2	2334	↑
FNTB	2342	↑
FOLH1	2346	↑
FOLR1	2348	↑
FPR1	2357	↑
FRK	2444	↑
FRAP1	2475	↑
FUS	2521	↑
KDSR	2531	↑
G6PD	2539	↑
GABBR1	2550	↑
GAK	2580	↑
GDF10	2662	↑
GDI1	2664	↓
GDI2	2665	↑
GJA3	2700	↑
GJA8	2703	↑
GCLC	2729	↑
GNAI2	2771	↓
GNRH2	2797	↑
GOLGA3	2802	↑
GOLGA4	2803	↑
GOLGB1	2804	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GP1BB	2812	↓
GPD2	2820	↑
GPM6B	2824	↓
GRK5	2869	↑
GRK6	2870	↑
GPS1	2873	↑
GRB2	2885	↑
GRIN2C	2905	↑
GRM8	2918	↑
CXCL2	2920	↑
GRP58	2923	↑
GSK3A	2931	↑
GSK3B	2932	↑
GSR	2936	↑
GSTM4	2948	↑
GTF2H3	2967	↑
GTF3A	2971	↓
HIST1H2BC	3017	↑
HADH	3033	↑
NCKAP1L	3071	↑
HLA-A	3105	↑
HLA-B	3106	↑
HLA-G	3135	↑
HMGN2	3151	↑
HMGCR	3156	↑
NR4A1	3164	↑
HNRNPA1	3178	↑
HNRPA2B1	3181	↑
HNRNPAB	3182	↓
HNRNPK	3190	↑
HNRPU	3192	↑
HPGD	3248	↑
HRAS	3265	↑
AGFG2	3268	↑
HSF4	3299	↑
DNAJA1	3301	↓
HSPA1B	3304	↑
HSPA1L	3305	↑
HSPA2	3306	↑
HSPA5	3309	↑
HSPA8	3312	↑
HSPA9B	3313	↑
HSPB1	3315	↑
HSP90AA1	3320	↑
HSPCB	3326	↑
HSPD1	3329	↑
HTR2A	3356	↑
HTR2C	3358	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TNC	3371	↑
IARS	3376	↑
ICAM1	3383	↑
IRF8	3394	↑
IFIT2	3433	↑
IFIT1	3434	↑
IFNA7	3444	↑
IFNAR2	3455	↑
IFNGR2	3460	↑
IGFBP6	3489	↑
CYR61	3491	↑
IGSF1	3547	↑
IK	3550	↑
IL1A	3552	↑
IL3	3562	↑
IL5RA	3568	↑
IL9R	3581	↑
IL10	3586	↓
IL13	3596	↑
IL15RA	3601	↑
ILF3	3609	↑
IMPA2	3613	↑
INSIG1	3638	↑
IRAK1	3654	↑
IRF1	3659	↑
IRF2	3660	↑
IRF6	3664	↑
ITGA2B	3674	↑
ITGA3	3675	↑
ITGAE	3682	↓
ITGB4BP	3692	↑
ITPKB	3707	↑
JAK1	3716	↑
JAK2	3717	↑
JUN	3725	↑
JUNB	3726	↑
KARS	3735	↑
KCND3	3752	↓
KCNJ3	3760	↑
KCNJ11	3767	↑
KCNJ12	3768	↑
KCNMA1	3778	↑
KISS1	3814	↑
KNG1	3827	↑
KIF11	3832	↑
KPNB1	3837	↑
TNPO1	3842	↑
RANBP5	3843	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
KRAS	3845	↑
KRT6B	3854	↑
KRT14	3861	↑
KRT18	3875	↓
LAIR2	3904	↑
LAMA5	3911	↑
LASP1	3927	↑
LGALS2	3957	↑
LGALS3	3958	↑
LGALS3BP	3959	↑
LGALS9	3965	↑
LIG3	3980	↑
LIMK1	3984	↑
LMNA	4000	↑
PRICKLE3	4007	↑
LOX	4015	↑
LTK	4058	↑
CAPRIN1	4076	↑
MAD2L1	4085	↑
SMAD5	4090	↑
SMAD7	4092	↑
MAGEA11	4110	↑
MAN2B1	4125	↑
MAP1B	4131	↑
MARK3	4140	↑
MARS	4141	↑
MAT2A	4144	↑
MATN3	4148	↑
MCM5	4174	↑
MDM2	4193	↑
MFAP1	4236	↑
CXCL9	4283	↑
MIPEP	4285	↑
MAP3K11	4296	↑
MPG	4350	↑
MSRA	4482	↑
MST1R	4486	↑
MSX1	4487	↑
MT1M	4499	↑
MUC1	4582	↑
MYC	4609	↑
MYH9	4627	↑
MYH10	4628	↑
MYL6	4637	↑
MYOD1	4654	↑
NACA	4666	↑
HNRPM	4670	↑
BIRC1	4671	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
NAP1L1	4673	↓
NBN	4683	↑
NDUFA7	4701	↑
NDUFA8	4702	↑
NDUFA10	4705	↑
NDUFB8	4714	↑
NDUFS8	4728	↑
NEU1	4758	↑
NEUROD2	4761	↑
NF1	4763	↑
NFIA	4774	↑
NFE2L1	4779	↑
NFIL3	4783	↑
NFKB1	4790	↑
NFKBIA	4792	↑
NFKBIE	4794	↑
NHP2L1	4809	↑
NONO	4841	↑
NOS3	4846	↑
CNOT3	4849	↑
NPAS1	4861	↑
NPY1R	4886	↑
NSF	4905	↑
NTHL1	4913	↑
NTRK1	4914	↑
NTRK2	4915	↑
ROR2	4920	↑
NTSR1	4923	↑
NUP98	4928	↑
OAS1	4938	↑
FURIN	5045	↑
SERPINB2	5055	↑
PAK1	5058	↑
PAK2	5062	↑
PAK3	5063	↑
PARK2	5071	↑
PC	5091	↑
PCCB	5096	↑
PCK2	5106	↑
PCMT1	5110	↑
PCP4	5121	↑
PCTK3	5129	↑
PDE1B	5153	↑
PDGFA	5154	↑
PDGFRL	5157	↑
PDK3	5165	↑
PEPD	5184	↑
PFTK1	5218	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
PGAM2	5224	↑
PGD	5226	↑
PHB	5245	↑
PHF2	5253	↑
SERPINA1	5265	↑
PIK3C2A	5286	↑
PIK3C2G	5288	↑
PIK3C3	5289	↑
PIK3CB	5291	↑
PIK3CD	5293	↑
PIK3R2	5296	↑
PIN1	5300	↑
PIP	5304	↑
PKD1	5310	↑
PLAU	5328	↓
PLD2	5338	↑
PLEC1	5339	↑
PLEK	5341	↑
PLXNA2	5362	↑
POLA1	5422	↑
POLE	5426	↓
POLE2	5427	↑
POLR2D	5433	↓
POLR2H	5437	↑
POLR2L	5441	↑
PPA1	5464	↑
PPIB	5479	↑
PPIC	5480	↑
PPM1B	5495	↑
PPM1G	5496	↑
PPP2R1A	5518	↓
PPP2R2B	5521	↓
PPP6C	5537	↑
PRKACA	5566	↑
PRKAR1A	5573	↑
PRKCA	5578	↑
PRKCD	5580	↑
PRKCI	5584	↑
PRKCZ	5590	↑
PRKG1	5592	↑
MAPK1	5594	↑
MAPK8	5599	↑
MAPK11	5600	↑
MAPK13	5603	↑
MAP2K2	5605	↑
MAP2K3	5606	↑
MAP2K5	5607	↑
EIF2AK2	5610	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
PRKY	5616	↑
PRPS1	5631	↓
PRPSAP1	5635	↑
PRSS8	5652	↑
PSAP	5660	↑
PSG11	5680	↑
PSMA1	5682	↑
PSMA4	5685	↑
PSMA5	5686	↑
PSMB2	5690	↑
PSMB3	5691	↑
PSMB6	5694	↑
PSMB9	5698	↑
PSMC1	5700	↑
PSMC3	5702	↑
PSMC4	5704	↑
PSMC6	5706	↑
PSMD1	5707	↑
PSMD2	5708	↑
PSMD3	5709	↑
PSMD4	5710	↑
PSMD7	5713	↑
PSMD8	5714	↑
PSMD11	5717	↑
PSMD12	5718	↑
PSMD13	5719	↑
PSME1	5720	↑
PSME2	5721	↑
PTBP1	5725	↑
PTGFRN	5738	↓
PTMA	5757	↑
PTPN11	5781	↑
PTPRM	5797	↑
PTPRN	5798	↑
PTPRR	5801	↑
PTS	5805	↑
PEX19	5824	↑
PZP	5858	↑
RAB5A	5868	↑
RABGGTA	5875	↑
RABGGTB	5876	↑
RAD51L1	5890	↑
RAN	5901	↑
RBBP6	5930	↑
RBM3	5935	↑
RBMS1	5937	↑
RCN1	5954	↑
PRPH2	5961	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
DPF2	5977	↑
RET	5979	↑
REV3L	5980	↑
RFNG	5986	↑
TRIM27	5987	↑
RFX3	5991	↑
RGS2	5997	↑
RGS4	5999	↓
RGS13	6003	↑
RIT2	6014	↑
RING1	6015	↑
RNASE4	6038	↑
RNASEL	6041	↑
ROCK1	6093	↑
RPA1	6117	↑
RPL3	6122	↑
RPL6	6128	↑
RPL11	6135	↑
RPL13	6137	↑
RPL15	6138	↑
RPL23A	6147	↓
RPL26	6154	↑
RPL27	6155	↓
RPL27A	6157	↑
RPL41	6171	↑
RPLP0	6175	↑
RPLP2	6181	↑
MRPL12	6182	↑
RPN1	6184	↑
RPN2	6185	↑
RPS3	6188	↑
RPS4X	6191	↑
RPS5	6193	↑
RPS6KA2	6196	↑
RPS7	6201	↑
RPS8	6202	↑
RPS10	6204	↑
RPS11	6205	↑
RPS12	6206	↑
RPS14	6208	↑
RPS15	6209	↑
RPS15A	6210	↑
RPS16	6217	↑
RPS17	6218	↑
RPS18	6222	↑
RPS19	6223	↓
RPS20	6224	↑
RPS24	6229	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
RPS27A	6233	↑
RPS28	6234	↑
RPS29	6235	↑
CLIP1	6249	↑
RXRG	6258	↑
S100A1	6271	↑
S100A2	6273	↑
S100A4	6275	↑
S100A10	6281	↓
SAFB	6294	↑
SARS	6301	↑
SCN3A	6328	↑
SCN8A	6334	↑
SCNN1D	6339	↑
SCNN1G	6340	↑
CCL3	6348	↑
CCL3L1	6349	↑
CCL13	6357	↑
CXCL5	6374	↑
SDC4	6385	↑
SEC13	6396	↑
SELPLG	6404	↑
SFPQ	6421	↑
SFRS7	6432	↓
SFSWAP	6433	↑
SFRS10	6434	↑
SFTPB	6439	↑
SGCA	6442	↑
SGK1	6446	↑
SGTA	6449	↑
SHC1	6464	↑
SIAH2	6478	↑
SLC1A3	6507	↑
SLC1A7	6512	↑
SLC2A2	6514	↑
SLC5A1	6523	↑
SLC7A1	6541	↑
SLC12A4	6560	↑
SLC16A1	6566	↑
SMARCB1	6598	↑
SMARCD3	6604	↑
SUMO2	6613	↑
SNCB	6620	↑
FSCN1	6624	↑
SNRP70	6625	↑
SNRPA	6626	↑
SNRPA1	6627	↑
SNRPB	6628	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
SNRPC	6631	↑
SNRPD1	6632	↑
SNRPD2	6633	↑
SNRPD3	6634	↑
SNRPF	6636	↑
SNRPG	6637	↑
SOLH	6650	↓
SON	6651	↑
SORL1	6653	↑
UAP1	6675	↑
SRP9	6726	↑
SRP14	6727	↑
SRP19	6728	↑
SRP54	6729	↑
SRPK2	6733	↑
TRIM21	6737	↑
SSRP1	6749	↑
SSTR5	6755	↑
STAT3	6774	↑
CDKL5	6792	↑
STX5	6811	↑
STXBP1	6812	↓
SUPT6H	6830	↑
SVIL	6840	↑
SYK	6850	↑
TAF12	6883	↑
TARBP1	6894	↑
CNTN2	6900	↑
TBCA	6902	↑
TBCD	6904	↑
TBP	6908	↑
HNF1A	6927	↑
TCF3	6929	↑
TCF20	6942	↑
TDG	6996	↑
TEAD3	7005	↑
TFAP2A	7020	↑
TFAP2C	7022	↑
TFE3	7030	↑
TGFBR1	7046	↑
THRSP	7069	↑
TK2	7084	↑
TSPAN7	7102	↑
TMF1	7110	↑
TOP2A	7153	↑
TPI1	7167	↑
TPM4	7171	↑
TPR	7175	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TPT1	7178	↑
TSC1	7248	↑
PHLDA2	7262	↑
TTN	7273	↑
TUBA1	7277	↑
TUBB2A	7280	↑
TXK	7294	↑
UBC	7316	↑
UBE2A	7319	↑
UBE2H	7328	↓
SUMO1	7341	↑
SLC35A2	7355	↑
UMPS	7372	↑
UNG	7374	↑
UQCRC2	7385	↑
VCP	7415	↑
VEGFB	7423	↑
VHL	7428	↑
VIM	7431	↑
WNT5A	7474	↑
WNT9A	7483	↑
XBP1	7494	↑
XPNPEP1	7511	↑
XPO1	7514	↑
YWHAE	7531	↑
YWHAZ	7534	↑
SF1	7536	↑
ZIC1	7545	↑
ZNF7	7553	↑
ZNF8	7554	↑
ZNF16	7564	↑
ZNF23	7571	↑
ZSCAN20	7579	↑
ZKSCAN1	7586	↑
MKRNP5	7682	↓
ZNF132	7691	↑
TRIM25	7706	↑
ZNF154	7710	↑
TRIM26	7726	↑
ZNF217	7764	↑
ZNF224	7767	↑
MAP3K12	7786	↑
DAP3	7818	↓
VPS24	7844	↑
BRPF1	7862	↑
BAT1	7919	↑
SLC39A7	7922	↑
JTV1	7965	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GLRA3	8001	↑
NUP214	8021	↑
LHX3	8022	↑
YEATS4	8089	↓
HMGA2	8091	↑
CDK2AP1	8099	↑
TAF15	8148	↑
SF3A2	8175	↑
C21ORF33	8209	↑
USP9X	8239	↑
RBM10	8241	↑
ARD1	8260	↑
HIST3H3	8290	↑
TRRAP	8295	↑
AXIN1	8312	↑
FZD6	8323	↑
HIST1H2BG	8339	↑
HIST1H2BN	8341	↑
HIST1H4A	8359	↑
HIST1H4H	8365	↑
HIST1H4G	8369	↑
PLA2G10	8399	↑
STK24	8428	↑
RAD54L	8438	↑
NCK2	8440	↑
ATRN	8455	↑
TPST1	8460	↓
SUPT3H	8464	↑
CDC42BPA	8476	↑
PIK3R3	8503	↑
API5	8539	↓
BHLHE40	8553	↑
CDK10	8558	↑
KHSRP	8570	↓
OASL	8638	↑
KCNK5	8645	↑
NUMB	8650	↓
EIF3S10	8661	↑
EIF3B	8662	↑
EIF3C	8663	↑
EIF3D	8664	↑
EIF3F	8665	↑
EIF3S4	8666	↑
EIF3H	8667	↑
EIF3I	8668	↑
EIF4G3	8672	↑
STX10	8677	↑
SFRS9	8683	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
B4GALT2	8704	↑
MBTPS1	8720	↑
EDF1	8721	↑
CTNNAL1	8727	↓
GBF1	8729	↑
CRADD	8738	↑
HRK	8739	↑
ADAM20	8748	↓
RIPK2	8767	↑
TNFRSF6B	8771	↑
SIGLEC5	8778	↑
RIOK3	8780	↑
TNFRSF18	8784	↑
TNFRSF10D	8793	↑
TNFRSF10C	8794	↓
CDKL1	8814	↑
DPM2	8818	↑
IQGAP1	8826	↑
SYNGAP1	8831	↑
GMPS	8833	↓
CFLAR	8837	↑
SYNJ1	8867	↑
VNN2	8875	↑
SQSTM1	8878	↑
APPBP1	8883	↑
MCM3AP	8888	↑
EIF2B4	8890	↑
EIF2S2	8894	↑
AP1M1	8907	↓
RAB7L1	8934	↑
WASF1	8936	↑
BAIAP3	8938	↑
BTRC	8945	↑
PLOD3	8985	↑
RPS6KA4	8986	↑
SELENBP1	8991	↓
TAF1A	9015	↑
MPZL1	9019	↑
SOCS3	9021	↑
ARTN	9048	↑
PRC1	9055	↑
PRY	9081	↑
SART1	9092	↑
ATP6V0D1	9114	↑
RABEP1	9135	↑
DYRK1B	9149	↑
PCSK7	9159	↑
OSMR	9180	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
BUB3	9184	↑
DDX21	9188	↑
DCLK1	9201	↑
ZMYM6	9204	↓
LARGE	9215	↑
VAPB	9217	↓
RAB11B	9230	↑
DLG5	9231	↑
RPS6KA5	9252	↑
BZRAP1	9256	↑
CYTH2	9266	↑
COPB2	9276	↑
CRSP2	9282	↑
GPR56	9289	↑
ATP6V1F	9296	↑
KCNB2	9312	↑
GTF3C5	9328	↓
TCEAL1	9338	↑
EFTUD2	9343	↑
SLC22A6	9356	↑
PRSS15	9361	↑
SLC9A3R1	9368	↑
TM9SF2	9375	↓
COX5A	9377	↑
COG1	9382	↑
RECQL4	9401	↑
FADS2	9415	↑
MED23	9439	↑
ITM2B	9445	↑
MAP4K4	9448	↑
LY86	9450	↑
EIF2AK3	9451	↑
GGPS1	9453	↑
HAND2	9464	↑
ONECUT2	9480	↑
SLC25A27	9481	↑
ADAMTS2	9509	↑
ADAMTS1	9510	↑
FXR2	9513	↑
BAG3	9531	↑
IGDCC3	9543	↓
ATP6V1G1	9550	↑
GOSR2	9570	↑
CLOCK	9575	↑
CDC42BPB	9578	↑
IER2	9592	↑
NFE2L3	9603	↑
ABCG1	9619	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
AATK	9625	↑
G1P2	9636	↑
IKBKE	9641	↑
MICAL2	9645	↑
MTFR1	9650	↑
PLCH2	9651	↑
IQCB1	9657	↑
SAFB2	9667	↑
ZNF432	9668	↑
KIAA0406	9675	↑
N4BP1	9683	↓
NUP93	9688	↑
RAPGEF2	9693	↑
KIAA0226	9711	↑
FAM131B	9715	↑
AQR	9716	↑
SART3	9733	↑
CLSTN3	9746	↑
KIAA0101	9768	↑
DDX48	9775	↑
KIAA0652	9776	↑
FAM38A	9780	↑
DHX38	9785	↑
MTSS1	9788	↑
NUPL1	9818	↑
TRIM14	9830	↑
CEP350	9857	↑
PSMD6	9861	↑
FCHSD2	9873	↑
TLK1	9874	↑
DDX46	9879	↓
LPPR4	9890	↑
G3BP2	9908	↑
SEC16A	9919	↑
RNF10	9921	↑
IQSEC1	9922	↑
OXSR1	9943	↑
CRYZL1	9946	↑
AMMECR1	9949	↑
USP15	9958	↑
FGF19	9965	↑
MED12	9968	↑
NUP153	9972	↑
CCS	9973	↓
CLEC2B	9976	↑
SCO2	9997	↓
MED6	10001	↑
TANK	10010	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GNE	10020	↑
TROAP	10024	↓
CHAF1A	10036	↑
RANBP9	10048	↑
SAE1	10055	↑
DNM1L	10059	↑
SNUPN	10073	↑
PTPRU	10076	↑
TSFM	10102	↑
PPIF	10105	↑
PREB	10113	↑
HIPK3	10114	↑
LRPPRC	10128	↑
TRAP1	10131	↑
TRIM28	10155	↑
ATP6AP2	10159	↑
FARP1	10160	↑
RBM5	10181	↑
TNK2	10188	↑
ALG3	10195	↑
DHRS2	10202	↑
NUTF2	10204	↑
PSMD14	10213	↑
GDF11	10220	↑
M6PRBP1	10226	↓
LRRC17	10234	↑
RASGRP2	10235	↑
CALCOCO2	10241	↑
POP7	10248	↑
SPRY1	10252	↑
SF3B4	10262	↑
OPRS1	10280	↑
BET1	10282	↑
BCAS2	10286	↑
SF3A1	10291	↑
APC2	10297	↑
PAK4	10298	↑
KATNB1	10300	↑
TRIM22	10346	↑
SEMA3A	10371	↑
TUBB3	10381	↑
NOD1	10392	↑
GNB2L1	10399	↑
PIAS3	10401	↑
BASP1	10409	↑
IFITM3	10410	↓
RBM14	10432	↑
VAV3	10451	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TOMM40	10452	↑
TAB1	10454	↑
BAIAP2	10458	↑
SLC30A9	10463	↑
COG5	10466	↑
FST	10468	↑
TIMM44	10469	↑
NXF1	10482	↑
SYNCRIP	10492	↑
FBXW10	10517	↑
DDX17	10521	↑
CHERP	10523	↑
ANP32B	10541	↑
SLC35A1	10559	↑
ARFGEF2	10564	↑
SLU7	10569	↑
CCT4	10575	↑
TXNRD2	10587	↓
PRPF8	10594	↑
ERN2	10595	↑
AHSA1	10598	↑
PAICS	10606	↑
TBL3	10607	↑
HEXIM1	10614	↑
RBCK1	10616	↑
IVNS1ABP	10625	↑
MRCL3	10627	↑
IGF2BP1	10642	↑
IGF2BP2	10644	↑
YKT6	10652	↑
SPINT2	10653	↑
KHDRBS1	10657	↑
CXCR6	10663	↑
CD226	10666	↑
GMEB1	10691	↑
CCT6B	10693	↑
CCT8	10694	↑
POLD3	10714	↑
NFAT5	10725	↑
PLK4	10733	↑
AHCYL1	10768	↑
NEK6	10783	↑
MTHFD2	10797	↑
SDCCAG8	10806	↑
WASF3	10810	↑
CPLX1	10815	↑
TUBGCP2	10844	↑
CD3EAP	10849	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
ACTL7A	10881	↑
RAB10	10890	↑
MMP24	10893	↑
JTB	10899	↑
RUNDC3A	10900	↓
BRD8	10902	↑
TXNL4A	10907	↑
PAPOLA	10914	↑
RNPS1	10921	↑
SFRS2B	10929	↑
PRDX3	10935	↑
AFG3L2	10939	↑
SF3A3	10946	↑
TMED2	10959	↓
ERP29	10961	↑
STIP1	10963	↑
RAB40B	10966	↑
CKAP4	10970	↑
UQCR11	10975	↑
COPS6	10980	↑
GCN1L1	10985	↑
IMMT	10989	↑
SF3B2	10992	↑
KIF2C	11004	↑
IL24	11009	↑
GLIPR1	11010	↑
CENTA1	11033	↑
GTF2A1L	11036	↑
NUDT21	11051	↑
WWP2	11060	↑
CIT	11113	↑
POLR3A	11128	↑
ERLIN2	11160	↓
NUDT4	11163	↑
WDR6	11180	↓
INMT	11185	↑
PROSC	11212	↑
IRAK3	11213	↑
AKAP13	11214	↑
DUSP10	11221	↑
RPL35	11224	↑
PRAF2	11230	↑
DUSP12	11266	↑
LYPLA2	11313	↓
COPE	11316	↑
HSGT1	11319	↑
FKBP9	11328	↑
STK38	11329	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
PHB2	11331	↑
CBX3	11335	↑
EXOC3	11336	↑
U2AF2	11338	↑
CASC3	22794	↑
COG2	22796	↑
ITGA11	22801	↑
XRN2	22803	↑
COPZ1	22818	↑
COPG	22820	↑
SIAHBP1	22827	↑
FRMPD1	22844	↑
CHSY1	22856	↓
FASTKD2	22868	↑
ZNF510	22869	↑
TRAPPC8	22878	↑
WDR37	22884	↑
DHX30	22907	↑
NCBP2	22916	↑
RAB18	22931	↓
SCAP	22937	↑
SKIIP	22938	↑
TCF25	22980	↓
DIP2C	22982	↑
DAAM1	23002	↑
CNOT1	23019	↑
ASCC3L1	23020	↑
MYT1L	23040	↑
SMG1	23049	↑
CLUAP1	23059	↑
CMTR1	23070	↑
VWA8	23078	↑
TRIM35	23087	↑
TNRC6B	23112	↑
ANKLE2	23141	↑
DCUN1D4	23142	↑
CIC	23152	↑
6-Sep	23157	↑
NUP205	23165	↑
STAB1	23166	↑
LPIN1	23175	↑
RFTN1	23180	↑
KANK1	23189	↑
GANAB	23193	↑
MDN1	23195	↑
TBC1D1	23216	↓
RRP12	23223	↑
DNAJC9	23234	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
PLCB1	23236	↑
COBL	23242	↓
SCFD1	23256	↑
MCF2L	23263	↑
KIAA0664	23277	↑
NUP160	23279	↑
ANKS1A	23294	↑
UBR2	23304	↑
NCAPD3	23310	↑
KIAA1033	23325	↑
WDR7	23335	↑
DNAJC16	23341	↑
UBR4	23352	↑
VPS8	23355	↑
ANGEL1	23357	↓
LARP	23367	↑
NUDCD3	23386	↑
KIAA0999	23387	↑
PIP5K1C	23396	↑
PPWD1	23398	↑
SIRT3	23410	↓
MLYCD	23417	↑
NOMO1	23420	↑
HARS2	23438	↑
SF3B3	23450	↑
SF3B1	23451	↑
ABCB10	23456	↑
ICMT	23463	↑
CBX6	23466	↑
PHF3	23469	↑
TRAM1	23471	↑
LEPROTL1	23484	↑
ZFYVE26	23503	↑
SUZ12	23512	↑
RPL13AP7	23521	↑
SRRM2	23524	↑
ACAP2	23527	↓
PIK3R5	23533	↑
TNPO3	23534	↑
SEZ6L	23544	↑
CCRK	23552	↑
CDK20	23552	↑
PIGN	23556	↑
CHST5	23563	↑
DDAH1	23576	↑
DDX58	23586	↑
DAPK2	23604	↑
NTSR2	23620	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
BACE1	23621	↑
PLD3	23646	↑
PRKD3	23683	↑
SHPK	23729	↓
SDF2L1	23753	↑
IL17R	23765	↑
IL17RA	23765	↑
FLRT2	23768	↑
FKBP8	23770	↑
MTCH1	23787	↓
IFIT5	24138	↑
LSM4	25804	↑
SAMM50	25813	↑
CCRN4L	25819	↑
HECTD1	25831	↑
RAB26	25837	↑
COG4	25839	↑
PART1	25859	↑
TMEM186	25880	↑
POC1A	25886	↑
ZNF473	25888	↑
COBRA1	25920	↑
MYRIP	25924	↓
C2ORF32	25927	↑
SOSTDC1	25928	↑
CLIC4	25932	↑
SAMHD1	25939	↑
UNC50	25972	↑
CHMP2B	25978	↑
REXO2	25996	↑
TBC1D10B	26000	↑
GLCE	26035	↑
UBXN7	26043	↑
POLDIP2	26073	↑
HERC4	26091	↑
LRIT1	26103	↑
PRPF31	26121	↑
C14ORF109	26175	↑
FBXW2	26190	↑
PPP1R14B	26472	↑
CNNM1	26507	↑
TSPAN16	26526	↑
OR2T1	26696	↑
KCNV1	27012	↑
ATP2C1	27032	↑
PKD2L2	27039	↑
SND1	27044	↑
B3GAT1	27087	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
CACNG4	27092	↑
TRAPPC3	27095	↑
SULT1C4	27233	↑
PDLIM3	27295	↑
ANGPTL3	27329	↑
STK39	27347	↑
POLM	27434	↑
TRIB2	28951	↑
MRPS28	28957	↑
CCDC56	28958	↑
MRPS18B	28973	↑
MRPL42	28977	↑
ASTE1	28990	↑
HIPK2	28996	↑
C16ORF72	29035	↑
THYN1	29087	↑
ORMDL2	29095	↑
CNIH4	29097	↑
C16ORF80	29105	↑
FHOD1	29109	↑
TBK1	29110	↑
C6ORF15	29113	↑
RACGAP1	29127	↑
OLA1	29789	↑
ALG5	29880	↑
ANAPC2	29882	↑
FAM216A	29902	↑
PYCR2	29920	↓
ALG6	29929	↑
NRBP1	29959	↑
PACSIN1	29993	↑
FSCN3	29999	↓
TBX21	30009	↑
HUNK	30811	↑
ST6GALNAC6	30815	↑
CSEN	30818	↑
PIK3R4	30849	↓
MINK1	50488	↑
GEMIN4	50628	↑
PNPLA8	50640	↑
DCAF8	50717	↑
MYEF2	50804	↑
COPS7A	50813	↑
TAS2R9	50835	↑
TXNDC11	51061	↑
CUTC	51076	↑
PLLP	51090	↑
LOC51149	51149	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
SDF4	51150	↑
ZNF580	51157	↓
DBR1	51163	↑
CYB5R4	51167	↑
NAGPA	51172	↑
COPZ2	51226	↑
SHISA5	51246	↓
MARCHF2	51257	↑
C12ORF47	51275	↑
FAM13B1	51306	↑
FAM53C	51307	↓
WAC	51322	↑
CRNKL1	51340	↑
TAOK3	51347	↑
EDD1	51366	↑
ATP6V1D	51382	↑
AIG1	51390	↑
TRPV2	51393	↑
TRAPPC4	51399	↑
ACTL6B	51412	↑
PRKAG2	51422	↑
POLK	51426	↑
SNX9	51429	↑
YTHDF2	51441	↑
PCYOX1	51449	↑
SFMBT1	51460	↑
ANKFY1	51479	↓
PTPLAD1	51495	↑
C20ORF111	51526	↑
VTA1	51534	↑
VPS54	51542	↑
SIRT6	51548	↑
PEX5L	51555	↑
RAB6B	51560	↑
PCF11	51585	↑
ARS2	51593	↑
NBAS	51594	↑
LSR	51599	↑
ATP6V1H	51606	↑
SF3B14	51639	↑
MRPS23	51649	↑
GINS2	51659	↑
UIMC1	51720	↓
DNAJB11	51726	↑
INPP5K	51763	↑
LRP1B	53353	↑
SHC3	53358	↑
TPCN1	53373	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
S1PR5	53637	↑
CNTN5	53942	↑
A4GALT	53947	↑
PION	54103	↑
DPM3	54344	↑
KCTD5	54442	↑
ANLN	54443	↓
RIN2	54453	↓
FLJ10458	54475	↑
RBM47	54502	↑
ADAMTSL4	54507	↑
FLJ11235	54508	↑
PCDH18	54510	↑
PUS7	54517	↑
APBB1IP	54518	↑
FAM35A	54537	↑
GNL3L	54552	↑
ING3	54556	↑
CRLS1	54675	↑
GPN2	54707	↓
TMED9	54732	↑
ZRANB1	54764	↓
PPP1R12C	54776	↑
BNC2	54796	↑
CDHR2	54825	↑
APTX	54840	↑
ESRP1	54845	↑
GON4L	54856	↑
PPP1R14D	54866	↑
FLJ20303	54888	↑
SLC41A3	54946	↑
MRPL16	54948	↑
SSH3	54961	↑
FLJ20516	54962	↑
C2orf42	54980	↑
C1orf159	54991	↑
TESC	54997	↑
HERC6	55008	↑
XKR8	55113	↑
ARHGEF10L	55160	↑
MSL2	55167	↑
SEC61A2	55176	↑
VPS13D	55187	↑
FANCI	55215	↓
PANK4	55229	↑
SMU1	55234	↑
BRF2	55290	↑
WDR33	55339	↓

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TMEM176A	55365	↑
TMCO6	55374	↓
LRRC59	55379	↑
C17orf85	55421	↑
CSGALNACT2	55454	↑
NAGK	55577	↑
SUPT20H	55578	↑
ZCCHC8	55596	↑
ITLN1	55600	↑
LRRC16A	55604	↑
TASP1	55617	↑
TTC27	55622	↑
ZNF407	55628	↓
SYBU	55638	↓
SLC48A1	55652	↑
PRPF40A	55660	↑
LUC7L	55692	↑
POLR3B	55703	↑
KBTBD4	55709	↑
ZNF334	55713	↑
N4BP2	55728	↓
DNAJC11	55735	↑
AGK	55750	↑
IFT122	55764	↓
EXOC2	55770	↑
PCID2	55795	↑
TRERF1	55809	↑
DOK5	55816	↑
VPS11	55823	↑
CAND1	55832	↑
USE1	55850	↑
PEN2	55851	↑
PSENEN	55851	↑
ZC3H15	55854	↑
PBK	55872	↑
CMAS	55907	↑
APOBR	55911	↑
NXT2	55916	↑
DMAP1	55929	↑
LIN37	55957	↑
SULF2	55959	↑
AJAP1	55966	↑
NXF3	56000	↑
PDGFC	56034	↑
PCDHGA1	56114	↑
PCDHB12	56124	↑
PCDHB3	56132	↑
STK31	56164	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
YLPM1	56252	↑
LRRC8A	56262	↑
IL1F9	56300	↑
ANKRD7	56311	↑
PPAN	56342	↑
NPDC1	56654	↑
POLE4	56655	↑
KCNK12	56660	↑
RETN	56729	↑
UBQLN4	56893	↑
C21orf7	56911	↑
PAK6	56924	↑
NCLN	56926	↑
ENY2	56943	↑
SDR39U1	56948	↑
XAB2	56949	↑
PRDM11	56981	↑
PSMG2	56984	↑
CABC1	56997	↑
CCNL1	57018	↑
RARS2	57038	↑
CASC5	57082	↓
AGTRAP	57085	↑
TRIM49	57093	↑
CPA6	57094	↑
RPGRIP1	57096	↓
GOPC	57120	↑
NUP107	57122	↑
RHBG	57127	↓
SCYL3	57147	↑
PELI1	57162	↑
ZMIZ1	57178	↑
THOC2	57187	↑
ZNF287	57336	↑
ADORA3	57413	↓
WDR18	57418	↑
NDRG3	57446	↑
BIRC6	57448	↑
ZNF512B	57473	↑
RNF150	57484	↑
ARID1B	57492	↑
HEG	57493	↑
KIDINS220	57498	↑
NLGN4X	57502	↑
INTS2	57508	↑
RPTOR	57521	↑
MIB1	57534	↑
KIAA1328	57536	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TAOK1	57551	↑
KLHL8	57563	↑
KIAA1411	57579	↑
CRAMP1L	57585	↑
SHROOM3	57619	↑
ZBTB2	57621	↑
EP400	57634	↑
RNF213	57674	↓
CHD8	57680	↑
DDX55	57696	↑
KIAA1604	57703	↑
KIAA1609	57707	↑
NCOA5	57727	↑
POLD4	57804	↑
SQRDL	58472	↑
PLEKHB1	58473	↑
SRPRB	58477	↑
TRAPPC1	58485	↑
C19ORF29	58509	↑
MID1IP1	58526	↑
RRAGD	58528	↓
SNX6	58533	↑
UBL5	59286	↑
SCPEP1	59342	↑
EXOC4	60412	↑
BACH2	60468	↑
SAV1	60485	↑
SPCS3	60559	↑
NAA35	60560	↑
C12orf44	60673	↑
TRAPPC11	60684	↑
ZFAND3	60685	↑
NSUN3	63899	↑
ZNF667	63934	↑
RTP4	64108	↑
MAGEF1	64110	↑
HCAP-G	64151	↑
RGNEF	64283	↑
RAB17	64284	↑
FTS	64400	↑
RGS18	64407	↓
WBSCR17	64409	↑
C14orf173	64423	↑
ALDH8A1	64577	↑
PLA2G2F	64600	↑
VPS16	64601	↑
COPS7B	64708	↓
HS3ST6	64711	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
LPPR2	64748	↑
FLJ21865	64772	↑
P2RY12	64805	↑
FBXL17	64839	↑
USP46	64854	↑
DCLRE1B	64858	↑
ARMCX5	64860	↑
SLC26A10	65012	↑
VPS33A	65082	↓
UPF3B	65109	↑
RSRC2	65117	↑
NADK	65220	↑
C8ORF33	65265	↑
AACS	65985	↑
C16orf24	65990	↑
LRFN4	78999	↑
C19orf43	79002	↑
AHNAK	79026	↑
SPATA5L1	79029	↑
TMEM38A	79041	↑
NOC4L	79050	↑
CHAC1	79094	↑
MGC10433	79171	↑
IRX3	79191	↑
NKAIN1	79570	↑
EPS8L3	79574	↑
LASS4	79603	↑
ROGDI	79641	↑
CHMP6	79643	↑
USB1	79650	↑
HECTD3	79654	↑
ZMAT4	79698	↑
LRRK1	79705	↑
CCDC51	79714	↑
KCTD17	79734	↑
C10ORF68	79741	↓
ISOC2	79763	↑
FBXO31	79791	↑
CARF	79800	↑
ZNF552	79818	↑
ZBTB3	79842	↑
TUBAL3	79861	↑
FLJ23554	79864	↑
BORA	79866	↑
CBLL1	79872	↑
AYTL2	79888	↑
PRR5L	79899	↑
NUP85	79902	↓

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
MRM1	79922	↓
TNIP3	79931	↑
DOCK5	80005	↓
BICC1	80114	↑
SIKE	80143	↑
C10orf57	80195	↑
CCDC92	80212	↑
TM2D3	80213	↑
CXORF21	80231	↑
ZKSCAN3	80317	↑
ULBP1	80329	↑
LY6G6C	80740	↑
PRR7	80758	↑
STARD5	80765	↑
ZNF436	80818	↑
PRRT1	80863	↑
GDPD5	81544	↑
TXNDC5	81567	↑
AMN	81693	↑
DOCK8	81704	↑
TLR10	81793	↑
RAB1B	81876	↑
SLIRP	81892	↑
TCF7L1	83439	↑
SF3B5	83443	↑
EMC6	83460	↑
SCRT1	83482	↑
COG3	83548	↑
C11ORF68	83638	↓
FAM103A1	83640	↑
FAM167A	83648	↑
NIBP	83696	↑
URP2	83706	↑
TSPAN10	83882	↓
MPN	83886	↑
TSSK1B	83942	↑
SSTK	83983	↑
MND1	84057	↑
WDR54	84058	↑
DKFZP564K142	84061	↑
ARMC2	84071	↑
C4ORF17	84103	↑
PCGF6	84108	↑
USP42	84132	↑
POLR1B	84172	↑
TMEM164	84187	↓
SGK196	84197	↑
DKFZP434N035	84222	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
IQCG	84223	↑
CCDC135	84229	↑
HSDL2	84263	↑
MGC4238	84292	↑
LLPH	84298	↑
CCDC115	84317	↑
CIP29	84324	↑
LZIC	84328	↑
COG8	84342	↑
PRAC	84366	↑
MSANTD4	84437	↑
LZTS2	84445	↑
ZNF512	84450	↑
IL1F10	84639	↑
MGC2452	84730	↑
USMG5	84833	↑
PHF5A	84844	↑
PARP10	84875	↑
LRRN6A	84894	↑
FAM73B	84895	↑
TMTC4	84899	↑
LRP11	84918	↑
ATCAY	85300	↑
COL27A1	85301	↑
C6ORF33	85315	↑
ALG2	85365	↑
CCNB3	85417	↑
FHDC1	85462	↑
SELI	85465	↑
MBD3L1	85509	↑
KCNK17	89822	↑
ABCC10	89845	↑
NYD-SP25	89882	↑
WDR34	89891	↑
GLB1L2	89944	↓
KLC4	89953	↑
SYT8	90019	↑
CCDC120	90060	↑
KCNH7	90134	↑
SYS1	90196	↑
SNX21	90203	↑
ZNF616	90317	↑
CCDC74A	90557	↑
FAM104B	90736	↑
IL33	90865	↑
ESAM	90952	↑
CREB3L1	90993	↑
FMNL3	91010	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GGTL4	91227	↑
LMF2	91289	↓
DERL3	91319	↑
CCDC74B	91409	↑
YTHDC1	91746	↑
NEK9	91754	↑
NDUFAF2	91942	↑
C19ORF20	91978	↑
MCART1	92014	↓
TTC30A	92104	↓
LOC92235	92235	↑
GLYATL1	92292	↑
LOC92312	92312	↑
G6PC3	92579	↑
TIFA	92610	↓
DTD1	92675	↑
C20ORF114	92747	↑
B3GNT7	93010	↑
LEMD1	93273	↑
HAUS8	93323	↑
OPALIN	93377	↑
MMGT1	93380	↑
ARMC6	93436	↑
MAPK1IP1L	93487	↑
FBXO44	93611	↑
MYOCD	93649	↑
ACRC	93953	↑
ACTR8	93973	↓
PAXBP1	94104	↑
FOXQ1	94234	↑
LIMS3	96626	↑
TGS1	96764	↑
SNX18	112574	↑
STX1B	112755	↑
RPUSD1	113000	↑
PLCD3	113026	↑
AHNAK2	113146	↑
C20ORF54	113278	↑
CYP2U1	113612	↑
KLHDC7B	113730	↑
DTX2	113878	↑
PALM2	114299	↑
CSMD3	114788	↑
SLC25A25	114789	↑
OSBPL6	114880	↑
OSBPL10	114884	↑
GPRASP2	114928	↑
PTPMT1	114971	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GPR146	115330	↑
FCHO2	115548	↑
NOSTRIN	115677	↑
ALPK2	115701	↑
C14ORF172	115708	↑
DIS3L	115752	↑
TOP1MT	116447	↑
APOA5	116519	↑
ARAP1	116985	↑
THEM4	117145	↑
RFFL	117584	↑
UBE2J2	118424	↑
GPR62	118442	↑
ZFYVE27	118813	↑
COMTD1	118881	↑
SFXN2	118980	↑
CTGLF1	119016	↑
SLC15A4	121260	↑
C14ORF28	122525	↑
JDP2	122953	↑
MGC26885	124044	↑
ZG16B	124220	↑
CANT1	124583	↑
USH1G	124590	↑
B4GALNT2	124872	↓
SMCR7	125170	↑
C19ORF70	125988	↑
TRAPPC5	126003	↑
OR10H4	126541	↑
C2CD4C	126567	↑
PUSL1	126789	↓
OR14C36	127066	↑
KLHDC7A	127707	↑
UBXN10	127733	↑
ARHGEF19	128272	↑
PROKR2	128674	↑
MBOAT2	129642	↑
TMEM18	129787	↑
ACVR1C	130399	↑
KCTD18	130535	↑
ZFAND2B	130617	↑
NUDT16	131870	↑
MGC16471	132001	↑
OCIAD2	132299	↑
C4ORF32	132720	↑
EVC2	132884	↑
SLC9B2	133308	↑
IL31RA	133396	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TMEM71	137835	↑
C9ORF23	138716	↓
PASD1	139135	↑
DEFB127	140850	↑
FAM65C	140876	↑
ZNF280B	140883	↑
LOC144383	144383	↓
E2F7	144455	↑
RPS3AP47	146053	↓
DNAH2	146754	↑
CCDC42	146849	↑
TMEM199	147007	↑
NOTUM	147111	↑
ZNF417	147687	↑
COMMD7	149951	↑
IGSF5	150084	↑
C21ORF121	150142	↑
CCDC117	150275	↓
DNAJB7	150353	↑
CCDC12	151903	↑
C4ORF23	152992	↓
RASGEF1B	153020	↑
SLC36A2	153201	↑
C5ORF38	153571	↑
PLAC8L1	153770	↑
SLC2A12	154091	↓
AMOTL1	154810	↑
IQUB	154865	↑
ATP6V0E2	155066	↑
CLEC14A	161198	↑
TRPV3	162514	↑
DEDD2	162989	↑
LOC163233	163233	↑
DENND1B	163486	↑
DCAMKL2	166614	↑
DCLK2	166614	↑
TRIM60	166655	↑
DCP2	167227	↑
PRSS35	167681	↑
FAM170B	170370	↑
S100Z	170591	↑
COMMD6	170622	↑
POLR3H	171568	↑
DTX3	196403	↑
PLBD2	196463	↑
PAOX	196743	↑
GRAMD2	196996	↑
MLKL	197259	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
LCE4A	199834	↑
SLFNL1	200172	↑
KRTCAP2	200185	↑
TAPT1	202018	↑
TUBB	203068	↑
LGI3	203190	↑
ANKS6	203286	↑
VMA21	203547	↑
HIPK1	204851	↑
OR9I1	219954	↑
CYB561A3	220002	↑
FLJ25416	220042	↑
OTUD1	220213	↑
FAM13C1	220965	↑
LEMD2	221496	↑
TWISTNB	221830	↑
FOXK1	221937	↑
FAM185A	222234	↑
NKAPL	222698	↑
FAM217A	222826	↑
DEFB128	245939	↑
STAC3	246329	↑
C21ORF93	246704	↓
STXBP4	252983	↑
CADM2	253559	↑
EBF3	253738	↑
C20ORF200	253868	↑
ASPHD1	253982	↑
BRWD3	254065	↑
TBC1D28	254272	↑
ANKK1	255239	↑
NPNT	255743	↓
MGC33212	255758	↑
ZNF37B	256112	↑
SYCE2	256126	↑
PLCXD2	257068	↓
NCR3	259197	↓
BCL9L	283149	↑
OR8D2	283160	↑
LOC283377	283377	↑
GPR133	283383	↑
KSR2	283455	↑
C13ORF29	283487	↓
NOMO2	283820	↑
TMEM235	283999	↑
LOC284058	284058	↑
NEK8	284086	↑
PTRF	284119	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
RPL36AP49	284230	↑
TPRX1	284355	↑
KLK9	284366	↑
HKR1	284459	↑
BTBD8	284697	↑
KIAA1107	284697	↑
PRRT3	285368	↓
LOC285830	285830	↑
CXORF59	286464	↑
KLHL10	317719	↑
PHGDHL1	337867	↑
KRTAP6-3	337968	↑
NLRP10	338322	↑
NLRP14	338323	↑
DUPD1	338599	↑
B4GALNT4	338707	↑
ZNF678	339500	↓
MGC48998	339512	↑
SLC6A19	340024	↑
UNCX	340260	↑
LHFPL1	340596	↑
PKD1L3	342372	↑
OR2T8	343172	↑
BARHL2	343472	↑
FAM174A	345757	↓
RSHL3	345895	↑
OR6V1	346517	↓
FAM195B	348262	↑
NUP43	348995	↑
DNAAF3	352909	↑
LCE3A	353142	↑
ZNF445	353274	↑
C18ORF34	374864	↑
HSD11B1L	374875	↑
FAM73A	374986	↑
RBM44	375316	↑
PTAR1	375743	↑
CA13	377677	↑
ENTPD8	377841	↑
SUMO4	387082	↑
C1QTNF9B	387911	↑
SHISA2	387914	↑
C16ORF86	388284	↑
INCA1	388324	↑
RPL7P48	388401	↓
YPEL2	388403	↑
RPL21P131	388532	↓
IQCF5	389124	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TMPRSS11F	389208	↑
OR51B6	390058	↑
TRIM77	390231	↑
OR6M1	390261	↑
OR4K13	390433	↑
OR5AU1	390445	↑
GRID2IP	392862	↑
OR2A5	393046	↑
FOXI2	399823	↑
NF1L2	401007	↑
FLJ41327	401045	↓
LOC401431	401431	↑
PTPLAD2	401494	↑
FAM166A	401565	↑
OR51T1	401665	↑
OR2T2	401992	↑
KPNA7	402569	↑
LOC401396	402582	↓
NOMO3	408050	↑
CCL3L3	414062	↑
CCDC88C	440193	↑
EIF2AK4	440275	↑
LOC440396	440396	↑
RNASEK	440400	↑
MAP1LC3C	440738	↑
PIWIL3	440822	↑
LOC441239	441239	↑
OR9K2	441639	↑
OR4M1	441670	↑
OR2J3	442186	↑
PRY2	442862	↑
FLJ25758	497049	↑
CCDC157	550631	↑
PRR9	574414	↑
FAM25A	643161	↑
KIAA0754	643314	↑
ZNF862	643641	↑
FAM83G	644815	↑
KIAA0895L	653319	↑
LOC653712	653712	↑
PRAMEF16	654348	↑
SPATA31A3	727830	↑
HEATR7A	727957	↑
KRTAP1-4	728255	↑
CCDC169	728591	↑
LOC728683	728683	↑
PLIN4	729359	↑
ZNF812	729648	↑

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GTF2H2D	730394	↑
LOC730974	730974	↑
ZNF705B	100132396	↑
UPK3BL	100134938	↑
CMC4	100272147	↑
USP17L10	100287144	↑
SMIM18	100507341	↑
SAA2-SAA4	100528017	↑
IFNL4	101180976	↑

The 85 genes overlapped with the 784 DEGs are highlighted.