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	<u> </u>
ABCA2	20	į
ABL2	27	v ↑
ACACA	31	<u> </u>
ACADSB	36	<u>,</u>
ACP2	53	<u>†</u>
ACTB	60	Ĺ
ACTC1	70	*
ACTG1	71	i
ACTN1	87	Ĭ.
ACTN2	88	*
ACVR2A	92	<u> </u>
ADAM8	101	<u> </u>
ADCY1	107	<u> </u>
ADCY7	113	<u> </u>
ADRA1B	147	<u> </u>
ADRBK2	157	↑
ADSL	158	· ↑
AP2A2	161	\ ↑
JAG1	182	I ↑
AHCY	191	I ↑
AKT1	207	I ↑
ABCD1	215	↑
ALDOA	226	↑
ALK	238	↑
AMHR2	269	↑
ANPEP	290	↑
SLC25A5	292	↑
ANXA1	301	
BIRC4	331	∀
APOA1	335	I ↑
APOB	338	 ↑
APP	351	 ↑
AQP4	361	I ↑
ABCC6	368	↑
ARAF	369	I ↑
ARCN1	372	 ↑
TRIM23	373	 ↑
ASPA	443	l ↑
ZFHX3	463	l ↑
ATF1	466	l ↑
ATF3	467	 ↑
ATF4	468	 ↑
ATP1A2	408 477	 ↑
ATP1A2 ATP5A1	498	l I

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

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
CDK4	1019	
CDKN1B	1027	<u>†</u>
CEL	1056	<u> </u>
CGA	1081	\ <u>\</u>
RCC1	1104	\ ↑
СНКА	1119	↑
СНМ	1121	<u>†</u>
CHRM1	1128	I ↑
LYST	1130	
CHUK	1147	↓
CIRBP	1153	\ ↑
CISH	1154	\ ↑
CKS1B	1163	I ↑
AP2M1	1173	 ↑
AP2S1	1175	 ↑
CLU	1191	 ↑
CLK1	1195	<u>†</u>
CLK3	1198	 ↑
CLN5	1203	 ↑
CLNS1A	1207	<u> </u>
CLNSTA CLPTM1	1207	 ↑
CLTC	1213	 ↑
CNGB1	1213	<u> </u>
PLK3	1263	 ↑
COL1A1	1203	 ↑
COLIAI COL2AI	1280	 ↑
COL15A1	1306	<u> </u>
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	<u> </u>
CSF2	1437	 ↑
CSK CSK	1445	 ↑
CSNK1A1	1452	 ↑
CSNK1A1 CSNK1D	1452	 ↑
CSNK1D CSNK1G2	1455	 ↑
CSNR1G2 CSRP1	1465	 ↑
CTBP1	1487	 ↑
CTGF 1	1490	 ↑
CIOI	1470	

Cono symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
CTNNB1	1499	
CTRB1	1504	<u> </u>
CTSD	1509	↑
CTSG	1511	↑
CTSW	1521	↑
CYC1	1537	\uparrow
CYLC1	1538	\downarrow
CYLD	1540	↑
CYP2J2	1573	\uparrow
CYP17A1	1586	↑
DAD1	1603	↑
DAPK3	1613	↑
DARS	1615	↑
DBT	1629	<u></u>
GADD45A	1647	\uparrow
DDX3X	1654	↑
DHX8	1659	↑
DHX15	1665	↑
DHCR7	1717	↑
DIO1	1733	↑
DLG2	1740	↑
DLX2	1746	↑
DMD	1756	↑
DNASE1L3	1776	↑
DYNC111	1780	↑
DNMTI	1786	↑
TRDMT1	1787	↑
DPAGT1	1798	↑
DPYD	1806	↑
DSC3	1825	↑
DSP	1832	↑
DUSP3	1845	\uparrow
DUSP5	1847	↑
DYRK1A	1859	↑
E2F1	1869	↑
EEF1A1	1915	↑
EEF1A2	1917	↑
EEF1G	1937	\uparrow
EEF2	1938	\uparrow
EIF1AX	1964	\uparrow
EIF2S1	1965	<u>↑</u>
EIF4A2	1974	<u> </u>
EIF4B	1975	↑
EIF5	1983	<u>↑</u>
ELK1	2002	<u>↑</u>
MARK2	2011	<u>↑</u>
EMP2	2013	<u>↑</u>
EMX1	2016	

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

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
GP1BB	2812	
GPD2	2820	*
GPM6B	2824	
GRK5	2869	*
GRK6	2870	<u> </u>
GPS1	2873	\ \
GRB2	2885	\ \
GRIN2C	2905	\ ↑
GRM8	2918	 ↑
CXCL2	2920	 ↑
GRP58	2923	 ↑
GSK3A	2931	 ↑
GSK3A GSK3B	2932	 ↑
GSR3D GSR	2936	 ↑
GSTM4	2948	 ↑
GTF2H3	2967	 ↑
G1F2113 GTF3A	2971	
HIST1H2BC	3017	↓
HADH	3033	
NCKAP1L	3071	<u></u>
HLA-A	3105	
HLA-B	3106	Ť
HLA-G	3135	\uparrow
HMGN2	3151	\uparrow
HMGCR	3156	\uparrow
NR4A1	3164	\uparrow
HNRNPA1	3178	↑
HNRPA2B1	3181	\uparrow
HNRNPAB	3182	\downarrow
HNRNPK	3190	\uparrow
HNRPU	3192	\uparrow
HPGD	3248	↑
HRAS	3265	↑
AGFG2	3268	↑
HSF4	3299	<u> </u>
DNAJA1	3301	\downarrow
HSPA1B	3304	\uparrow
HSPA1L	3305	\uparrow
HSPA2	3306	↑
HSPA5	3309	↑
HSPA8	3312	↑
HSPA9B	3313	↑
HSPB1	3315	· ↑
HSP90AA1	3320	· ↑
HSPCB	3326	· ↑
HSPD1	3329	·
HTR2A	3356	<u>,</u>
HTR2C	3358	<u>†</u>

TNC 3371 IARS 3376 ICAMI 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 IL3 3562 IL3 3568 IL10 3586 IL13 3596 IL13 3596 IL15RA 3601 ILF3 3609 IMPA2 3613 INSIGI 3638 IRAKI 3659	
ICAMI	
IRF8 3394 ↑ IFIT2 3433 ↑ IFIT1 3434 ↑ IFNA7 3444 ↑ IFNAR2 3455 ↑ IFNGR2 3460 ↑ IGFBP6 3489 ↑ CYR61 3491 ↑ IGSF1 3547 ↑ IK 3550 ↑ IL1A 3552 ↑ IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3588 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAK1 3654 ↑	
IFIT2 3433 ↑ IFIT1 3434 ↑ IFNA7 3444 ↑ IFNAR2 3455 ↑ IFNGR2 3460 ↑ IGFBP6 3489 ↑ CYR61 3491 ↑ IGSF1 3547 ↑ IK 3550 ↑ IL1A 3552 ↑ IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3568 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIGI 3638 ↑ IRAKI 3654 ↑	
IFITI 3434 ↑ IFNA7 3444 ↑ IFNAR2 3455 ↑ IFNGR2 3460 ↑ IGFBP6 3489 ↑ CYR61 3491 ↑ IGSF1 3547 ↑ IK 3550 ↑ IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3568 ↑ IL1BR 3581 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRFI 3659 ↑	
IFNA7 3444 ↑ IFNAR2 3455 ↑ IFNGR2 3460 ↑ IGFBP6 3489 ↑ CYR61 3491 ↑ IGSF1 3547 ↑ IK 3550 ↑ IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3568 ↑ IL1B 3586 ↓ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRFI 3659 ↑	
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 ↑ INSIGI 3638 ↑ IRFI 3659 ↑	
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	
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 ↑	
CYR61 3491 ↑ IGSF1 3547 ↑ IK 3550 ↑ IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3568 ↑ IL1BR 3586 ↓ IL1B 3596 ↑ IL1SRA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIGI 3638 ↑ IRAKI 3654 ↑ IRFI 3659 ↑	
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	
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 ↑	
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 ↑	
IL1A 3552 ↑ IL3 3562 ↑ IL5RA 3568 ↑ IL9R 3581 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAK1 3654 ↑ IRF1 3659	
IL3 3562 ↑ IL5RA 3568 ↑ IL9R 3581 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAKI 3654 ↑ IRF1 3659 ↑	
IL5RA 3568 ↑ IL9R 3581 ↑ IL10 3586 ↓ IL13 3596 ↑ IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAK1 3654 ↑ IRF1 3659 ↑	
IL9R 3581 IL10 3586 IL13 3596 IL15RA 3601 ILF3 3609 IMPA2 3613 INSIG1 3638 IRAK1 3654 IRF1 3659	
IL10 3586 IL13 3596 IL15RA 3601 ILF3 3609 IMPA2 3613 INSIG1 3638 IRAK1 3654 IRF1 3659	
IL13 3596 IL15RA 3601 ILF3 3609 IMPA2 3613 INSIG1 3638 IRAK1 3654 IRF1 3659	
IL15RA 3601 ↑ ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAK1 3654 ↑ IRF1 3659 ↑	
 ILF3 3609 ↑ IMPA2 3613 ↑ INSIG1 3638 ↑ IRAK1 3654 ↑ IRF1 3659 ↑ 	
IMPA2 3613 INSIGI 3638 IRAKI 3654 IRFI 3659	
<i>INSIG1</i> 3638 ↑ <i>IRAK1</i> 3654 ↑ <i>IRF1</i> 3659 ↑	
<i>IRAK1</i> 3654 ↑ <i>IRF1</i> 3659 ↑	
<i>IRF1</i> 3659 ↑	
<i>IRF2</i> 3660 ↑	
<i>IRF6</i> 3664 ↑	
<i>ITGA2B</i> 3674 ↑	
<i>ITGA3</i> 3675 ↑	
ITGAE 3682	
ITGB4BP 3692	
<i>ITPKB</i> 3707 ↑	
JAK1 3716	
JAK2 3717	
JUN 3725 ↑	
JUNB 3726	
<i>KARS</i> 3735 ↑	
<i>KCND3</i> 3752 ↓	
KCNJ3 3760	
KCNJ11 3767 ↑	
KCNJ12 3768 ↑	
KCNMA1 3778 ↑	
KISSI 3814 ↑	
KNG1 3827 ↑	
KIF11 3832 ↑	
<i>KPNB1</i> 3837 ↑	
TNPO1 3842 ↑	
RANBP5 3843	

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
KRAS	3845	<u> </u>
KRT6B	3854	<u> </u>
KRT14	3861	<u> </u>
KRT18	3875	į Į
LAIR2	3904	<u> </u>
LAMA5	3911	<u> </u>
LASP1	3927	<u> </u>
LGALS2	3957	<u> </u>
LGALS3	3958	<u>`</u>
LGALS3BP	3959	<u> </u>
LGALS9	3965	<u>`</u>
LIG3	3980	<u> </u>
LIMK1	3984	<u> </u>
LMNA	4000	<u> </u>
PRICKLE3	4007	<u> </u>
LOX	4015	<u> </u>
LTK	4058	<u> </u>
CAPRIN1	4076	<u> </u>
<i>MAD2L1</i>	4085	<u> </u>
SMAD5	4090	<u> </u>
SMAD7	4092	<u> </u>
MAGEA11	4110	<u> </u>
MAN2B1	4125	<u> </u>
MAP1B	4131	<u> </u>
MARK3	4140	<u> </u>
MARS	4141	<u> </u>
MAT2A	4144	↑
<i>MATN3</i>	4148	↑
MCM5	4174	↑
MDM2	4193	↑
MFAP1	4236	↑
CXCL9	4283	↑
MIPEP	4285	↑
<i>MAP3K11</i>	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	<u> </u>

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

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Little 1D	(lead to pathology or virus replication)
PGAM2	5224	<u> </u>
PGD	5226	↑
PHB	5245	<u>†</u>
PHF2	5253	<u>†</u>
SERPINA I	5265	<u>†</u>
PIK3C2A	5286	<u>†</u>
PIK3C2G	5288	<u>,</u>
PIK3C3	5289	<u>,</u>
PIK3CB	5291	<u>,</u>
PIK3CD	5293	<u> </u>
PIK3R2	5296	<u>,</u>
PIN1	5300	<u>,</u>
PIP	5304	I ↑
PKD1	5310	↑
PLAU	5328	
PLD2	5338	∀
PLEC1	5339	I ↑
PLEK	5341	I
PLXNA2	5362	
POLA1	5422	 ↑
POLE	5426	l I
POLE2	5427	↓
POLR2D	5433	
		↓
POLR2H	5437	<u> </u>
POLR2L	5441	ļ
PPA1	5464	ļ
PPIB	5479	Ţ
PPIC	5480	Ţ
PPM1B	5495	Ţ
PPM1G	5496	<u> </u>
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	<u>`</u>
MAP2K2	5605	↑
MAP2K3	5606	↑
MAP2K5	5607	↑
EIF2AK2	5610	<u>,</u>

PRKY 5616 ↑ PRPS1 5631 ↓ PRPSAP1 5635 ↑ PRSS8 5652 ↑ PSAP 5660 ↑ PSG11 5680 ↑ PSMA1 5682 ↑ PSMA4 5685 ↑ PSMB5 5686 ↑ PSMB2 5690 ↑ PSMB3 5691 ↑ PSMB6 5694 ↑ PSMC1 5700 ↑ PSMC3 5702 ↑ PSMC4 5704 ↑ PSMD1 5707 ↑ PSMD2 5708 ↑ PSMD3 5709 ↑ PSMD4 5710 ↑	ication)
PRPSI 5631 PRPSAPI 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	
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	
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	
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	
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	
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	
PSMA4 5685 PSMB5 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	
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	
PSMB2 5690 PSMB3 5691 PSMB6 5694 PSMB9 5698 PSMC1 5700 PSMC3 5702 PSMC4 5704 PSMC6 5706 PSMD1 5707 PSMD2 5708 PSMD3 5709 PSMD4 5710	
PSMB3 5691 PSMB6 5694 PSMB9 5698 PSMC1 5700 PSMC3 5702 PSMC4 5704 PSMC6 5706 PSMD1 5707 PSMD2 5708 PSMD3 5709 PSMD4 5710	
PSMB6 5694 PSMB9 5698 PSMC1 5700 PSMC3 5702 PSMC4 5704 PSMC6 5706 PSMD1 5707 PSMD2 5708 PSMD3 5709 PSMD4 5710	
PSMB9 5698 PSMC1 5700 PSMC3 5702 PSMC4 5704 PSMC6 5706 PSMD1 5707 PSMD2 5708 PSMD3 5709 PSMD4 5710	
PSMC1 5700 $PSMC3$ 5702 $PSMC4$ 5704 $PSMC6$ 5706 $PSMD1$ 5707 $PSMD2$ 5708 $PSMD3$ 5709 $PSMD4$ 5710	
PSMC1 5700 $PSMC3$ 5702 $PSMC4$ 5704 $PSMC6$ 5706 $PSMD1$ 5707 $PSMD2$ 5708 $PSMD3$ 5709 $PSMD4$ 5710	
PSMC3 5702 $PSMC4$ 5704 $PSMC6$ 5706 $PSMD1$ 5707 $PSMD2$ 5708 $PSMD3$ 5709 $PSMD4$ 5710	
PSMC6 5706 $PSMD1$ 5707 $PSMD2$ 5708 $PSMD3$ 5709 $PSMD4$ 5710	
$\begin{array}{ccc} PSMD1 & 5707 & \uparrow \\ PSMD2 & 5708 & \uparrow \\ PSMD3 & 5709 & \uparrow \\ PSMD4 & 5710 & \uparrow \end{array}$	
$\begin{array}{ccc} PSMD1 & 5707 & \uparrow \\ PSMD2 & 5708 & \uparrow \\ PSMD3 & 5709 & \uparrow \\ PSMD4 & 5710 & \uparrow \end{array}$	
PSMD2 5708 PSMD3 5709 PSMD4 5710	
<i>PSMD3</i> 5709 ↑ ↑ <i>PSMD4</i> 5710 ↑	
<i>PSMD4</i> 5710 ↑	
· ·	
<i>PSMD7</i> 5713 ↑	
<i>PSMD8</i> 5714 ↑	
<i>PSMD11</i> 5717 ↑	
<i>PSMD12</i> 5718 ↑	
<i>PSMD13</i> 5719 ↑	
<i>PSME1</i> 5720 ↑	
<i>PSME2</i> 5721 ↑	
<i>PTBP1</i> 5725 ↑	
PTGFRN 5738	
<i>PTMA</i> 5757 ↑	
<i>PTPN11</i> 5781 ↑	
<i>PTPRM</i> 5797 ↑	
<i>PTPRN</i> 5798 ↑	
<i>PTPRR</i> 5801 ↑	
<i>PTS</i> 5805 ↑	
<i>PEX19</i> 5824 ↑	
<i>PZP</i> 5858 ↑	
<i>RAB5A</i> 5868 ↑	
RABGGTA 5875 ↑	
RABGGTB 5876 ↑	
RAD51L1 5890 ↑	
<i>RAN</i> 5901 ↑	
<i>RBBP6</i> 5930 ↑	
<i>RBM3</i> 5935 ↑	
<i>RBMS1</i> 5937 ↑	
<i>RCN1</i> 5954 ↑	
<i>PRPH2</i> 5961 ↑	

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
DPF2	5977	
RET	5979	† ↑
REV3L	5980	<u>†</u>
RFNG	5986	<u>†</u>
TRIM27	5987	<u>†</u>
RFX3	5991	<u>†</u>
RGS2	5997	<u>†</u>
RGS4	5999	į.
RGS13	6003	*
RIT2	6014	<u>†</u>
RINGI	6015	<u>,</u>
RNASE4	6038	<u>†</u>
RNASEL	6041	<u>†</u>
ROCK1	6093	<u>†</u>
RPA1	6117	<u>†</u>
RPL3	6122	<u>†</u>
RPL6	6128	<u> </u>
RPL11	6135	<u> </u>
RPL13	6137	<u> </u>
RPL15	6138	<u> </u>
RPL23A	6147	į
RPL26	6154	<u> </u>
RPL27	6155	į
RPL27A	6157	<u> </u>
RPL41	6171	<u> </u>
RPLP0	6175	<u> </u>
RPLP2	6181	↑
MRPL12	6182	↑
RPN1	6184	↑
RPN2	6185	↑
RPS3	6188	↑
RPS4X	6191	↑
RPS5	6193	↑
<i>RPS6KA2</i>	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	\downarrow
RPS20	6224	↑
RPS24	6229	<u> </u>

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

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
SNRPC	6631	<u> </u>
SNRPD1	6632	<u> </u>
SNRPD2	6633	<u> </u>
SNRPD3	6634	<u> </u>
SNRPF	6636	<u>†</u>
SNRPG	6637	<u>†</u>
SOLH	6650	j
SON	6651	*
SORL1	6653	<u>†</u>
UAP1	6675	<u>†</u>
SRP9	6726	<u> </u>
SRP14	6727	<u> </u>
SRP19	6728	<u> </u>
SRP54	6729	<u> </u>
SRPK2	6733	<u>†</u>
TRIM21	6737	↑
SSRP1	6749	<u> </u>
SSTR5	6755	↑
STAT3	6774	↑
CDKL5	6792	↑
STX5	6811	↑
STXBP1	6812	\downarrow
SUPT6H	6830	↑
SVIL	6840	\uparrow
SYK	6850	\uparrow
<i>TAF12</i>	6883	↑
TARBPI	6894	\uparrow
CNTN2	6900	\uparrow
TBCA	6902	\uparrow
TBCD	6904	↑
TBP	6908	↑
HNF1A	6927	↑
TCF3	6929	\uparrow
TCF20	6942	\uparrow
TDG	6996	\uparrow
TEAD3	7005	<u></u>
TFAP2A	7020	Ť
TFAP2C	7022	Ţ •
TFE3	7030	<u>↑</u>
TGFBR1	7046	↑ •
THRSP TK2	7069 7084	 ↑
TK2 TSPAN7	7084 7102	
TMF1	7102 7110	 ↑
TMF1 TOP2A	7110	
TPI1	7167	
TPM4	7171	l ↑
TPR	7175	I ↑
	1113	<u> </u>

Cono symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
TPT1	7178	
TSC1	7248	<u> </u>
PHLDA2	7262	<u>†</u>
TTN	7273	<u>†</u>
TUBA1	7277	<u>†</u>
TUBB2A	7280	<u>†</u>
TXK	7294	<u>†</u>
UBC	7316	<u></u>
UBE2A	7319	<u>†</u>
UBE2H	7328	į
SUMO1	7341	<u>,</u>
SLC35A2	7355	<u> </u>
UMPS	7372	<u>`</u>
$U\!NG$	7374	<u>`</u>
UQCRC2	7385	<u>†</u>
VCР	7415	<u> </u>
VEGFB	7423	<u> </u>
$V\!H\!L$	7428	<u>`</u>
VIM	7431	<u> </u>
WNT5A	7474	<u> </u>
WNT9A	7483	<u> </u>
XBP1	7494	<u> </u>
XPNPEP1	7511	<u> </u>
XPO1	7514	<u> </u>
YWHAE	7531	<u> </u>
YWHAZ	7534	<u> </u>
SF1	7536	<u></u>
ZIC1	7545	<u> </u>
ZNF7	7553	<u> </u>
ZNF8	7554	<u> </u>
ZNF16	7564	<u> </u>
ZNF23	7571	<u> </u>
ZSCAN20	7579	<u>`</u>
ZKSCAN1	7586	<u> </u>
<i>MKRNP5</i>	7682	Ĺ
ZNF132	7691	*
TRIM25	7706	<u>†</u>
ZNF154	7710	<u> </u>
TRIM26	7726	<u> </u>
ZNF217	7764	<u>,</u>
ZNF224	7767	<u>,</u>
MAP3K12	7786	<u> </u>
DAP3	7818	Ļ
VPS24	7844	*
BRPF1	7862	<u>'</u>
BAT1	7919	<u>,</u>
SLC39A7	7922	<u>,</u>
JTV1	7965	†

	F (15	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
GLRA3	8001	<u> </u>
<i>NUP214</i>	8021	<u>†</u>
LHX3	8022	<u>,</u>
YEATS4	8089	į
HMGA2	8091	<u>,</u>
CDK2AP1	8099	<u>,</u>
TAF15	8148	<u>,</u>
SF3A2	8175	<u>,</u>
C21ORF33	8209	<u>,</u>
USP9X	8239	<u>,</u>
<i>RBM10</i>	8241	<u>,</u>
ARD1	8260	· ↑
HIST3H3	8290	I ↑
TRRAP	8295	↑
AXIN1	8312	↑
FZD6	8323	! ↑
HIST1H2BG	8339	↑
HIST1H2BN	8341	I ↑
HIST1H4A	8359	 ↑
HIST1H4H	8365	
HIST1H4G	8369	
PLA2G10	8399	 ↑
STK24	8428	 ↑
RAD54L	8438	 ↑
NCK2	8440	 ↑
ATRN	8455	 ↑
TPST1	8460 8464	↓
SUPT3H		
CDC42BPA	8476	<u> </u>
PIK3R3	8503	
API5	8539	↓
BHLHE40	8553	Ţ
CDK10	8558	Ţ
KHSRP	8570	<u> </u>
OASL	8638	Ţ
KCNK5	8645	Ţ
NUMB	8650	<u> </u>
EIF3S10	8661	Ţ
EIF3B	8662	Ţ.
EIF3C	8663	↑
EIF3D	8664	Ţ.
EIF3F	8665	<u>↑</u>
EIF3S4	8666	<u>↑</u>
EIF3H	8667	↑
EIF3I	8668	<u> </u>
EIF4G3	8672	↑
STX10	8677	↑
SFRS9	8683	<u> </u>

Con e gymrh el	E4 ID	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
B4GALT2	8704	<u> </u>
MBTPS1	8720	<u>†</u>
EDF1	8721	<u> </u>
CTNNAL1	8727	Ļ
GBF1	8729	<u> </u>
CRADD	8738	
HRK	8739	, ↑
ADAM20	8748	į.
RIPK2	8767	↑
TNFRSF6B	8771	,
SIGLEC5	8778	<u>†</u>
RIOK3	8780	<u>†</u>
TNFRSF18	8784	, ↑
TNFRSF10D	8793	↑
TNFRSF10C	8794	j.
CDKL1	8814	*
DPM2	8818	<u>†</u>
IQGAP1	8826	<u>†</u>
SYNGAP1	8831	<u>†</u>
GMPS	8833	i
CFLAR	8837	*
SYNJ1	8867	↑
VNN2	8875	<u></u>
SQSTM1	8878	<u></u>
APPBP1	8883	<u></u>
MCM3AP	8888	↑
EIF2B4	8890	↑
EIF2S2	8894	↑
AP1M1	8907	İ
RAB7L1	8934	↓
WASF1	8936	I ↑
BAIAP3	8938	I ↑
BTRC	8945	I ↑
PLOD3	8985	I ↑
RPS6KA4	8986	I ↑
SELENBP1	8991	i i
TAF1A	9015	↓
MPZL1	9019	I ↑
SOCS3	9021	I ↑
ARTN	9048	I ↑
PRC1	9055	I ↑
PRY	9081	I ↑
SART1	9092	I ↑
ATP6V0D1	9114	I ↑
RABEP1	9135	I ↑
DYRK1B	9133 9149	I ↑
PCSK7	9149	I ↑
		 ↑
OSMR	9180	

.Gene symbol	Entrez ID	Direction of genes
. Gene symbol	Entrez 12	(lead to pathology or virus replication)
BUB3	9184	<u> </u>
DDX21	9188	↑
DCLKI	9201	↑
ZMYM6	9204	↓
LARGE	9215	<u>†</u>
VAPB	9217	↓
RAB11B	9230	<u>†</u>
DLG5	9231	<u>†</u>
<i>RPS6KA5</i>	9252	<u>†</u>
BZRAP1	9256	<u>†</u>
CYTH2	9266	<u>†</u>
COPB2	9276	<u>,</u>
CRSP2	9282	<u>,</u>
GPR56	9289	<u>,</u>
ATP6V1F	9296	<u>,</u>
KCNB2	9312	<u>,</u>
GTF3C5	9328	
TCEAL1	9338	*
EFTUD2	9343	· ↑
SLC22A6	9356	↑
PRSS15	9361	↑
SLC9A3R1	9368	! ↑
TM9SF2	9375	
COX5A	9377	↓
COASA COG1	9382	 ↑
RECQL4	9401	
FADS2	9415	 ↑
MED23	9439	 ↑
ITM2B	9445	 ↑
MAP4K4	9448	
MAF4K4 LY86	9450	 ↑
EIF2AK3	9450 9451	 ↑
GGPS1	9453	 ↑
HAND2		 ↑
ONECUT2	9464	
	9480	<u> </u>
SLC25A27	9481	ļ
ADAMTS2	9509	<u> </u>
ADAMTS1	9510	ļ
FXR2	9513	Ţ
BAG3	9531	Ţ
IGDCC3	9543	<u></u>
ATP6V1G1	9550	Ţ
GOSR2	9570	Ţ
CLOCK	9575	Ţ
CDC42BPB	9578	Ţ.
IER2	9592	↑
NFE2L3	9603	<u>↑</u>
ABCG1	9619	<u> </u>

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

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

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

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

Entrez ID (lead to pathology or virus replicate) PHB2 11331 CBX3 11335 EXOC3 11336 U2AF2 11338 CASC3 22794 COG2 22796 ITGA11 22801 XRN2 22803 COPZI 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 DIP2C 22982	
CBX3 11335 EXOC3 11336 U2AF2 11338 CASC3 22794 COG2 22796 ITGA11 22801 XRN2 22803 COPZI 22818 COPG 22820 SIAHBPI 22827 FRMPDI 22844 CHSYI 22856 FASTKD2 22868 ZNF510 22869 TRAPPC8 22878 WDR37 22884 DHX30 22907 NCBP2 22916 RAB18 22931 SCAP 22937 SKIIP 22938 TCF25 22980	tion)
EXOC3 11336 U2AF2 11338 CASC3 22794 COG2 22796 ITGA11 22801 XRN2 22803 COPZI 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	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
$XRN2$ 22803 \uparrow $COPZI$ 22818 \uparrow $COPG$ 22820 \uparrow $SIAHBPI$ 22827 \uparrow $FRMPDI$ 22844 \uparrow $CHSYI$ 22856 \downarrow $FASTKD2$ 22868 \uparrow $ZNF510$ 22869 \uparrow $TRAPPC8$ 22878 \uparrow $WDR37$ 22884 \uparrow $DHX30$ 22907 \uparrow $NCBP2$ 22916 \uparrow $RAB18$ 22931 \downarrow $SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
COPZI 22818 † $COPG$ 22820 † $SIAHBPI$ 22827 † $FRMPDI$ 22844 † $CHSYI$ 22856 ↓ $FASTKD2$ 22868 † $ZNF510$ 22869 † $TRAPPC8$ 22878 † $WDR37$ 22884 † $DHX30$ 22907 † $NCBP2$ 22916 † $RAB18$ 22931 † $SCAP$ 22937 † $SKIIP$ 22938 † $TCF25$ 22980 †	
$COPG$ 22820 \uparrow $SIAHBPI$ 22827 \uparrow $FRMPDI$ 22844 \uparrow $CHSYI$ 22856 \downarrow $FASTKD2$ 22868 \uparrow $ZNF510$ 22869 \uparrow $TRAPPC8$ 22878 \uparrow $WDR37$ 22884 \uparrow $DHX30$ 22907 \uparrow $NCBP2$ 22916 \uparrow $RAB18$ 22931 \downarrow $SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
SIAHBP1 22827 † $FRMPDI$ 22844 † $CHSYI$ 22856 ↓ $FASTKD2$ 22868 † $ZNF510$ 22869 † $TRAPPC8$ 22878 † $WDR37$ 22884 † $DHX30$ 22907 † $NCBP2$ 22916 † $RAB18$ 22931 ‡ $SCAP$ 22937 † $SKIIP$ 22938 † $TCF25$ 22980 ‡	
$FRMPD1$ 22844 \uparrow $CHSY1$ 22856 \downarrow $FASTKD2$ 22868 \uparrow $ZNF510$ 22869 \uparrow $TRAPPC8$ 22878 \uparrow $WDR37$ 22884 \uparrow $DHX30$ 22907 \uparrow $NCBP2$ 22916 \uparrow $RAB18$ 22931 \downarrow $SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
CHSYI 22856 $FASTKD2$ 22868 $ZNF510$ 22869 $TRAPPC8$ 22878 $WDR37$ 22884 $DHX30$ 22907 $NCBP2$ 22916 $RAB18$ 22931 $SCAP$ 22937 $SKIIP$ 22938 $TCF25$ 22980	
FASTKD2 22868 $ZNF510$ 22869 $TRAPPC8$ 22878 $WDR37$ 22884 $DHX30$ 22907 $NCBP2$ 22916 $RAB18$ 22931 $SCAP$ 22937 $SKIIP$ 22938 $TCF25$ 22980	
$ZNF510$ 22869 \uparrow $TRAPPC8$ 22878 \uparrow $WDR37$ 22884 \uparrow $DHX30$ 22907 \uparrow $NCBP2$ 22916 \uparrow $RAB18$ 22931 \downarrow $SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
$TRAPPC8$ 22878 \uparrow $WDR37$ 22884 \uparrow $DHX30$ 22907 \uparrow $NCBP2$ 22916 \uparrow $RAB18$ 22931 \downarrow $SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
WDR37 22884 \uparrow DHX30 22907 \uparrow NCBP2 22916 \uparrow RAB18 22931 \downarrow SCAP 22937 \uparrow SKIIP 22938 \uparrow TCF25 22980 \downarrow	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
NCBP2 22916 \uparrow RAB18 22931 \downarrow SCAP 22937 \uparrow SKIIP 22938 \uparrow TCF25 22980 \downarrow	
RAB18 22931 $SCAP$ 22937 $SKIIP$ 22938 $TCF25$ 22980	
$SCAP$ 22937 \uparrow $SKIIP$ 22938 \uparrow $TCF25$ 22980 \downarrow	
$\begin{array}{ccc} SKIIP & 22938 & \uparrow \\ TCF25 & 22980 & \downarrow \end{array}$	
<i>TCF25</i> 22980 ↓	
<i>TCF25</i> 22980 ↓	
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1211 H Q H H H H H H H H H H H H H H H H H	
<i>DAAM1</i> 23002 ↑	
<i>CNOT1</i> 23019 ↑	
<i>ASCC3L1</i> 23020 ↑	
<i>MYT1L</i> 23040 ↑	
<i>SMG1</i> 23049 ↑	
<i>CLUAP1</i> 23059 ↑	
<i>CMTR1</i> 23070 ↑	
<i>VWA8</i> 23078 ↑	
<i>TRIM35</i> 23087 ↑	
<i>TNRC6B</i> 23112 ↑	
<i>ANKLE2</i> 23141 ↑	
<i>DCUN1D4</i> 23142 ↑	
<i>CIC</i> 23152 ↑	
<i>6-Sep</i> 23157 ↑	
NUP205 23165	
<i>STAB1</i> 23166 ↑	
<i>LPIN1</i> 23175 ↑	
<i>RFTN1</i> 23180 ↑	
<i>KANK1</i> 23189 ↑	
GANAB 23193	
<i>MDN1</i> 23195 ↑	
<i>TBC1D1</i> 23216 ↓	
<i>RRP12</i> 23223 ↑	
<i>DNAJC9</i> 23234 ↑	

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
PLCB1	23236	<u> </u>
COBL	23242	j
SCFD1	23256	<u>,</u>
MCF2L	23263	<u> </u>
<i>KIAA0664</i>	23277	<u></u>
<i>NUP160</i>	23279	<u> </u>
ANKS1A	23294	<u>†</u>
UBR2	23304	<u> </u>
NCAPD3	23310	<u>†</u>
<i>KIAA1033</i>	23325	<u>†</u>
WDR7	23335	<u>†</u>
DNAJC16	23341	<u>†</u>
UBR4	23352	<u>†</u>
VPS8	23355	<u>†</u>
ANGEL1	23357	į
LARP	23367	↑
NUDCD3	23386	↑
<i>KIAA0999</i>	23387	↑
PIP5K1C	23396	↑
PPWD1	23398	↑
SIRT3	23410	\downarrow
MLYCD	23417	↑
NOMO1	23420	↑
HARS2	23438	↑
SF3B3	23450	1
SF3B1	23451	\uparrow
ABCB10	23456	\uparrow
ICMT	23463	\uparrow
CBX6	23466	\uparrow
PHF3	23469	\uparrow
TRAM1	23471	↑
LEPROTL1	23484	<u> </u>
ZFYVE26	23503	\uparrow
SUZ12	23512	↑
RPL13AP7	23521	\uparrow
SRRM2	23524	\uparrow
ACAP2	23527	\downarrow
PIK3R5	23533	<u> </u>
TNPO3	23534	↑
SEZ6L	23544	\uparrow
CCRK	23552	Ţ
CDK20	23552	Ţ
PIGN	23556	Ţ
CHST5	23563	Ţ
DDAH1	23576	
DDX58	23586	
DAPK2	23604	
NTSR2	23620	l

.Gene symbol	Entrez ID	Direction of genes
. Gene symbol		(lead to pathology or virus replication)
BACE1	23621	<u> </u>
PLD3	23646	↑
PRKD3	23683	<u> </u>
SHPK	23729	į
SDF2L1	23753	<u>†</u>
<i>IL17R</i>	23765	<u>†</u>
IL17RA	23765	<u>`</u>
FLRT2	23768	<u>,</u>
FKBP8	23770	<u>,</u>
MTCH1	23787	į
IFIT5	24138	<u>,</u>
LSM4	25804	<u> </u>
SAMM50	25813	<u> </u>
CCRN4L	25819	<u>,</u>
HECTD1	25831	<u>†</u>
RAB26	25837	<u>,</u>
COG4	25839	<u>,</u>
PART1	25859	<u>,</u>
<i>TMEM186</i>	25880	<u> </u>
POC1A	25886	<u> </u>
<i>ZNF473</i>	25888	<u> </u>
COBRA1	25920	<u>,</u>
MYRIP	25924	
C2ORF32	25927	*
SOSTDC1	25928	· ↑
CLIC4	25932	· ↑
SAMHD1	25939	↑
UNC50	25972	· ↑
CHMP2B	25978	· ↑
REXO2	25996	· ↑
TBC1D10B	26000	<u> </u>
GLCE	26035	↑
UBXN7	26043	↑
POLDIP2	26073	↑
HERC4	26091	↑
LRIT1	26103	↑
PRPF31	26121	↑
C14ORF109	26175	↑
FBXW2	26190	↑
PPP1R14B	26472	↑
CNNM1	26507	<u> </u>
TSPAN16	26526	I ↑
OR2T1	26696	I ↑
KCNV1	27012	I ↑
ATP2C1	27012	I ↑
PKD2L2	27032	I ↑
SND1	27039	I ↑
B3GAT1	27044	I ↑
DJUATI	21001	<u> </u>

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
CACNG4	27092	<u> </u>
TRAPPC3	27095	<u></u>
<i>SULT1C4</i>	27233	<u>†</u>
PDLIM3	27295	<u>†</u>
ANGPTL3	27329	<u>†</u>
STK39	27347	<u>†</u>
POLM	27434	<u>†</u>
TRIB2	28951	<u>,</u>
MRPS28	28957	<u>,</u>
CCDC56	28958	<u>†</u>
MRPS18B	28973	<u>,</u>
MRPL42	28977	<u>,</u>
ASTE1	28990	<u>,</u>
HIPK2	28996	· ↑
C16ORF72	29035	\ ↑
THYN1	29087	I ↑
ORMDL2	29095	↑
CNIH4	29097	
C16ORF80	29105	
FHOD1	29109	↑
TBK1	29110	↑
C6ORF15	29113	↑
RACGAP1	29127	↑
OLA1	29789	 ↑
ALG5	29880	 ↑
ANAPC2	29882	
FAM216A	29902	 ↑
PYCR2	29920	l I
ALG6	29929	↓
NRBP1	29959	
PACSIN1	29939	 ↑
	29993 29999	
FSCN3		↓
TBX21	30009	
HUNK	30811	
ST6GALNAC6	30815	<u> </u>
CSEN	30818	Ţ
PIK3R4	30849	<u></u>
MINK1	50488	Ţ
GEMIN4	50628	Ţ
PNPLA8	50640	Ţ
DCAF8	50717	<u></u>
MYEF2	50804	Ţ
COPS7A	50813	Ţ
TAS2R9	50835	Ţ
TXNDC11	51061	Ţ
CUTC	51076	<u>↑</u>
PLLP	51090	<u>↑</u>
LOC51149	51149	<u> </u>

Cana ayımlı al	E4 ID	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
SDF4	51150	<u> </u>
ZNF580	51157	,
DBR1	51163	<u> </u>
CYB5R4	51167	<u>,</u>
NAGPA	51172	<u>,</u>
COPZ2	51226	<u>†</u>
SHISA5	51246	į
<i>MARCHF2</i>	51257	<u> </u>
C12ORF47	51275	<u> </u>
FAM13B1	51306	<u>,</u>
FAM53C	51307	,
WAC	51322	<u>,</u>
CRNKL1	51340	<u>,</u>
TAOK3	51347	<u>,</u>
EDD1	51366	<u>,</u>
ATP6V1D	51382	<u>†</u>
AIGI	51390	<u>†</u>
TRPV2	51393	<u>,</u>
TRAPPC4	51399	↑
ACTL6B	51412	<u>,</u>
PRKAG2	51422	<u>,</u>
POLK	51426	<u>,</u>
SNX9	51429	<u>,</u>
YTHDF2	51441	<u>,</u>
PCYOX1	51449	<u>,</u>
SFMBT1	51460	<u>†</u>
ANKFYI	51479	J
PTPLAD1	51495	↓
C20ORF111	51526	<u>,</u>
VTA1	51534	<u>,</u>
VPS54	51542	<u>,</u>
SIRT6	51548	↑
PEX5L	51555	↑
RAB6B	51560	<u>,</u>
PCF11	51585	<u>,</u>
ARS2	51593	<u>,</u>
NBAS	51594	<u>,</u>
LSR	51599	↑
ATP6V1H	51606	<u>,</u>
SF3B14	51639	<u>,</u>
MRPS23	51649	·
GINS2	51659	·
UIMC1	51720	Į
DNAJB11	51726	.
INPP5K	51763	<u>,</u>
LRP1B	53353	<u>,</u>
SHC3	53358	<u>,</u>
TPCN1	53373	<u>,</u>

Cana gymbal	E4 ID	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
S1PR5	53637	<u> </u>
CNTN5	53942	<u>,</u>
A4GALT	53947	<u>`</u>
PION	54103	<u>†</u>
DPM3	54344	<u>†</u>
KCTD5	54442	<u>`</u>
ANLN	54443	i
RIN2	54453	Ĭ.
FLJ10458	54475	<u> </u>
RBM47	54502	<u>†</u>
ADAMTSL4	54507	<u>`</u>
FLJ11235	54508	<u>†</u>
PCDH18	54510	<u> </u>
PUS7	54517	<u> </u>
APBB1IP	54518	<u> </u>
FAM35A	54537	<u> </u>
GNL3L	54552	<u></u>
ING3	54556	<u></u>
CRLS1	54675	<u> </u>
GPN2	54707	
TMED9	54732	*
ZRANB1	54764	
PPP1R12C	54776	<u></u>
BNC2	54796	<u>†</u>
CDHR2	54825	<u>†</u>
APTX	54840	<u>†</u>
ESRP1	54845	<u>†</u>
GON4L	54856	<u>`</u>
PPP1R14D	54866	<u>†</u>
FLJ20303	54888	<u>†</u>
<i>SLC41A3</i>	54946	<u>†</u>
MRPL16	54948	<u>†</u>
SSH3	54961	<u> </u>
FLJ20516	54962	<u>†</u>
C2orf42	54980	<u>†</u>
<i>C1orf159</i>	54991	<u>†</u>
$T\!E\!S\!C$	54997	<u>†</u>
HERC6	55008	<u>†</u>
XKR8	55113	<u></u>
ARHGEF10L	55160	<u>,</u>
MSL2	55167	·
SEC61A2	55176	↑
VPS13D	55187	· ↑
<i>FANCI</i>	55215	Į
PANK4	55229	·
SMU1	55234	·
BRF2	55290	·
WDR33	55339	Į

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
TMEM176A	55365	<u> </u>
TMCO6	55374	Ĺ
LRRC59	55379	*
C17orf85	55421	<u>†</u>
CSGALÑACT2	55454	<u>`</u>
NAGK	55577	<u>†</u>
SUPT20H	55578	<u> </u>
ZCCHC8	55596	<u>†</u>
ITLN1	55600	<u>†</u>
LRRC16A	55604	<u>`</u>
TASP1	55617	<u></u>
TTC27	55622	<u>†</u>
<i>ZNF407</i>	55628	<u> </u>
SYBU	55638	Į
<i>SLC48A1</i>	55652	<u>`</u>
PRPF40A	55660	<u></u>
LUC7L	55692	<u>†</u>
POLR3B	55703	<u>†</u>
<i>KBTBD4</i>	55709	<u>†</u>
ZNF334	55713	<u>†</u>
N4BP2	55728	į
DNAJC11	55735	<u>,</u>
AGK	55750	<u>†</u>
IFT122	55764	į.
EXOC2	55770	<u>,</u>
PCID2	55795	<u>`</u>
TRERFI	55809	<u>†</u>
DOK5	55816	<u>†</u>
VPS11	55823	<u>†</u>
CAND1	55832	<u>†</u>
USE1	55850	<u>`</u>
PEN2	55851	<u>†</u>
PSENEN	55851	<u>†</u>
ZC3H15	55854	<u>†</u>
PBK	55872	<u>†</u>
CMAS	55907	<u>†</u>
APOBR	55911	<u> </u>
NXT2	55916	<u> </u>
DMAP1	55929	<u></u>
LIN37	55957	<u></u>
SULF2	55959	↑
AJAPI	55966	↑
NXF3	56000	↑
PDGFC	56034	↑
PCDHGA1	56114	↑
PCDHB12	56124	↑
PCDHB3	56132	↑
STK31	56164	

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez ID	(lead to pathology or virus replication)
YLPM1	56252	<u> </u>
LRRC8A	56262	<u></u>
<i>IL1F9</i>	56300	<u>†</u>
ANKRD7	56311	<u>†</u>
PPAN	56342	<u>†</u>
NPDC1	56654	<u>†</u>
POLE4	56655	<u>†</u>
KCNK12	56660	<u> </u>
RETN	56729	<u>†</u>
<i>UBQLN4</i>	56893	<u>†</u>
C21orf7	56911	<u>†</u>
PAK6	56924	<u> </u>
NCLN	56926	<u>`</u>
ENY2	56943	<u>`</u>
SDR39U1	56948	<u>†</u>
XAB2	56949	<u>`</u>
PRDM11	56981	<u>,</u>
PSMG2	56984	<u>`</u>
CABCI	56997	<u>`</u>
CCNL1	57018	<u>,</u>
RARS2	57038	<u> </u>
CASC5	57082	i
AGTRAP	57085	*
TRIM49	57093	<u> </u>
CPA6	57094	<u> </u>
RPGRIP1	57096	
GOPC	57120	*
NUP107	57122	<u></u>
RHBG	57127	
SCYL3	57147	*
PELI1	57162	\ ↑
ZMIZ1	57178	<u> </u>
THOC2	57187	<u> </u>
ZNF287	57336	↑
ADORA3	57413	
WDR18	57418	*
NDRG3	57446	\ ↑
BIRC6	57448	<u> </u>
ZNF512B	57473	↑
RNF150	57484	↑
ARID1B	57492	<u> </u>
HEG	57493	· ↑
KIDINS220	57498	, ↑
NLGN4X	57502	\ ↑
INTS2	57508	, ↑
RPTOR	57521	\ ↑
MIB1	57534	· ↑
KIAA1328	57536	, ↑
111111111111111111111111111111111111111	37330	I

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
TAOK1	57551	↑
KLHL8	57563	↑
KIAA1411	57579	↑
CRAMPIL	57585	↑
SHROOM3	57619	↑
ZBTB2	57621	↑
EP400	57634	↑
RNF213	57674	↓
CHD8	57680	↑
DDX55	57696	↑
<i>KIAA1604</i>	57703	↑
<i>KIAA1609</i>	57707	↑
NCOA5	57727	<u> </u>
POLD4	57804	<u> </u>
SQRDL	58472	<u> </u>
PLEKHB1	58473	<u> </u>
SRPRB	58477	<u> </u>
TRAPPC1	58485	<u> </u>
C19ORF29	58509	<u> </u>
MID1IP1	58526	<u> </u>
RRAGD	58528	į
SNX6	58533	<u> </u>
UBL5	59286	<u> </u>
SCPEP1	59342	<u>,</u>
EXOC4	60412	<u> </u>
BACH2	60468	<u>†</u>
SAVI	60485	<u> </u>
SPCS3	60559	<u> </u>
NAA35	60560	<u> </u>
C12orf44	60673	<u> </u>
TRAPPC11	60684	<u>†</u>
ZFAND3	60685	<u>`</u>
NSUN3	63899	<u>`</u>
<i>ZNF667</i>	63934	<u> </u>
RTP4	64108	<u> </u>
<i>MAGEF1</i>	64110	<u> </u>
HCAP-G	64151	<u> </u>
RGNEF	64283	<u> </u>
RAB17	64284	<u> </u>
FTS	64400	<u> </u>
RGS18	64407	↓
WBSCR17	64409	↑
C14orf173	64423	↑
ALDH8A1	64577	↑
PLA2G2F	64600	↑
VPS16	64601	↑
COPS7B	64708	↓
HS3ST6	64711	<u> </u>

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
LPPR2	64748	<u> </u>
FLJ21865	64772	<u></u>
<i>P2RY12</i>	64805	<u>†</u>
FBXL17	64839	<u>†</u>
USP46	64854	<u>†</u>
DCLRE1B	64858	<u>†</u>
ARMCX5	64860	<u>†</u>
<i>SLC26A10</i>	65012	<u>†</u>
VPS33A	65082	<u> </u>
UPF3B	65109	<u>`</u>
RSRC2	65117	<u></u>
NADK	65220	<u> </u>
C8ORF33	65265	<u> </u>
AACS	65985	<u>†</u>
C16orf24	65990	<u> </u>
LRFN4	78999	<u>†</u>
C19orf43	79002	<u>†</u>
AHNAK	79026	<u>†</u>
SPATA5L1	79029	<u>†</u>
TMEM38A	79041	<u>†</u>
NOC4L	79050	<u>†</u>
CHAC1	79094	<u>†</u>
MGC10433	79171	<u>†</u>
IRX3	79191	<u>,</u>
<i>NKAIN1</i>	79570	<u>†</u>
EPS8L3	79574	<u>†</u>
LASS4	79603	<u>†</u>
ROGDI	79641	<u>†</u>
CHMP6	79643	<u>†</u>
USB1	79650	<u>†</u>
HECTD3	79654	<u> </u>
ZMAT4	79698	<u>†</u>
LRRK1	79705	<u>†</u>
CCDC51	79714	<u>†</u>
KCTD17	79734	<u></u>
C10ORF68	79741	<u> </u>
ISOC2	79763	<u> </u>
FBXO31	79791	<u></u>
CARF	79800	<u></u>
<i>ZNF552</i>	79818	↑
ZBTB3	79842	↑
TUBAL3	79861	<u>↑</u>
FLJ23554	79864	↑
BORA	79866	↑
CBLL1	79872	· ↑
AYTL2	79888	· ↑
PRR5L	79899	<u>`</u>
NUP85	79902	

.Gene symbol	Entrez ID	Direction of genes
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MRM1	79922	<u> </u>
TNIP3	79931	↑
DOCK5	80005	Į
BICC1	80114	.
SIKE	80143	↑
C10orf57	80195	↑
CCDC92	80212	<u>†</u>
<i>TM2D3</i>	80213	<u>†</u>
CXORF21	80231	<u>†</u>
ZKSCAN3	80317	<u> </u>
ULBP1	80329	<u>†</u>
LY6G6C	80740	<u>†</u>
PRR7	80758	<u>†</u>
STARD5	80765	<u>†</u>
ZNF436	80818	<u>†</u>
PRRT1	80863	<u>†</u>
GDPD5	81544	<u>†</u>
TXNDC5	81567	<u>†</u>
AMN	81693	<u>†</u>
DOCK8	81704	<u>†</u>
TLR10	81793	<u> </u>
RAB1B	81876	·
SLIRP	81892	↑
TCF7L1	83439	↑
SF3B5	83443	↑
EMC6	83460	↑
SCRT1	83482	↑
COG3	83548	↑
C11ORF68	83638	i I
FAM103A1	83640	*
FAM167A	83648	I ↑
NIBP	83696	I ↑
URP2	83706	I ↑
TSPAN10	83882	i i
MPN	83886	↓
TSSK1B	83942	I ↑
SSTK	83983	I ↑
MND1	84057	I ↑
WDR54	84058	I ↑
DKFZP564K142	84061	I ↑
ARMC2	84071	I ↑
C4ORF17	84103	I ↑
PCGF6	84108	I ↑
USP42	84132	I ↑
POLR1B	84172	I ↑
TMEM164	84187	1 1
SGK196	84197	↓ ↑
DKFZP434N035	84222	I ↑
DKFZF434NU33	84222	

IQCG 8422 CCDC135 8422 HSDL2 8426 MGC4238 8429	9
CCDC135 8422 HSDL2 8426	9
<i>HSDL2</i> 8426	3
MCC1228 0420	
MUC4230 8429	2
<i>LLPH</i> 8429	·
<i>CCDC115</i> 8431	· ·
CIP29 8432	·
<i>LZIC</i> 8432	
COG8 8434	· ·
<i>PRAC</i> 8436	!
<i>MSANTD4</i> 8443	·
<i>LZTS2</i> 8444	5
<i>ZNF512</i> 8445	·
<i>IL1F10</i> 8463	·
MGC2452 8473	!
<i>USMG5</i> 8483	•
<i>PHF5A</i> 8484	· ·
PARP10 8487	
<i>LRRN6A</i> 8489	·
FAM73B 8489	·
<i>TMTC4</i> 8489	·
<i>LRP11</i> 8491	·
ATCAY 8530	·
COL27A1 8530	·
C6ORF33 8531	·
ALG2 8536	•
CCNB3 8541	· ·
FHDC1 8546	· ·
SELI 8546	·
MBD3L1 8550	·
KCNK17 8982	•
ABCC10 8984	•
NYD-SP25 8988	·
WDR34 8989	· ·
GLB1L2 8994	·
<i>KLC4</i> 8995	▼
SYT8 9001	· ·
CCDC120 9006	!
<i>KCNH7</i> 9013	·
SYS1 9019	· ·
SNX21 9020	
ZNF616 9031	!
CCDC74A 9055	·
FAM104B 9073	·
<i>IL33</i> 9086	·
ESAM 9095	·
CREB3L1 9099	·
FMNL3 9101	I I

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
- COMT 4	01005	(lead to pathology of virus replication)
GGTL4	91227	\uparrow
LMF2	91289	<u> </u>
DERL3	91319	<u></u>
CCDC74B	91409	<u>†</u>
YTHDC1	91746	<u>†</u>
NEK9	91754	<u></u>
NDUFAF2	91942	<u></u>
C19ORF20	91978	\uparrow
MCART1	92014	↓
TTC30A	92104	↓
LOC92235	92235	<u></u>
GLYATL1	92292	\uparrow
LOC92312	92312	<u></u>
G6PC3	92579	↑
TIFA	92610	↓
DTD1	92675	<u>↑</u>
C20ORF114	92747	<u>↑</u>
B3GNT7	93010	↑
LEMD1	93273	↑
HAUS8	93323	↑
<i>OPALIN</i>	93377	↑
MMGT1	93380	↑
ARMC6	93436	↑
MAPK1IP1L	93487	↑
FBXO44	93611	↑
MYOCD	93649	↑
ACRC	93953	↑
ACTR8	93973	\downarrow
PAXBP1	94104	↑
FOXQ1	94234	↑
LIMS3	96626	↑
TGS1	96764	↑
SNX18	112574	↑
STX1B	112755	↑
RPUSD1	113000	↑
PLCD3	113026	↑
AHNAK2	113146	<u>↑</u>
C20ORF54	113278	<u>↑</u>
CYP2U1	113612	<u>↑</u>
KLHDC7B	113730	<u>↑</u>
DTX2	113878	<u>↑</u>
PALM2	114299	Ť
CSMD3	114788	<u>^</u>
SLC25A25	114789	↑
OSBPL6	114880	↑
OSBPL10	114884	↑
GPRASP2	114928	<u> </u>
PTPMT1	114971	Ţ

.Gene symbol	Entrez ID	Direction of genes
.Gene symbol	Entrez 1D	(lead to pathology or virus replication)
GPR146	115330	<u> </u>
FCHO2	115548	<u>†</u>
NOSTRIN	115677	<u>,</u>
<i>ALPK2</i>	115701	<u>†</u>
C14ORF172	115708	<u>,</u>
DIS3L	115752	<u>,</u>
TOPIMT	116447	
APOA5	116519	
ARAP1	116985	
THEM4	117145	<u>,</u>
RFFL	117584	<u>,</u>
UBE2J2	118424	↑
GPR62	118442	<u>†</u>
ZFYVE27	118813	<u>†</u>
COMTD1	118881	<u>†</u>
SFXN2	118980	<u>†</u>
CTGLF1	119016	<u>†</u>
SLC15A4	121260	<u>†</u>
C14ORF28	122525	<u>†</u>
JDP2	122953	
MGC26885	124044	<u> </u>
ZG16B	124220	·
CANT1	124583	↑
USH1G	124590	I ↑
B4GALNT2	124872	i
SMCR7	125170	↓
C19ORF70	125988	I ↑
TRAPPC5	126003	I ↑
OR10H4	126541	I ↑
C2CD4C	126567	I ↑
PUSL1	126789	}
OR14C36	127066	↓
KLHDC7A	127707	
UBXN10	127733	
ARHGEF19	127733	 ↑
PROKR2	128272	
MBOAT2	129642	 ↑
TMEM18	129787	
ACVR1C	130399	 ↑
KCTD18	130535	 ↑
ZFAND2B	130535	↑
NUDT16	131870	I ↑
MGC16471	132001	I ↑
MGC104/1 OCIAD2	132299	I ↑
C4ORF32	132720	
EVC2	132884	Ţ
SLC9B2	133308	Ţ
<u>IL31RA</u>	133396	Î

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
<i>C9ORF23</i>	138716	↓
PASD1	139135	<u> </u>
DEFB127	140850	<u>†</u>
FAM65C	140876	<u>†</u>
ZNF280B	140883	<u>†</u>
LOC144383	144383	į.
<i>E2F7</i>	144455	<u>,</u>
RPS3AP47	146053	į
DNAH2	146754	<u>,</u>
CCDC42	146849	<u> </u>
<i>TMEM199</i>	147007	<u> </u>
NOTUM	147111	<u> </u>
ZNF417	147687	<u></u>
COMMD7	149951	<u> </u>
IGSF5	150084	<u> </u>
C21ORF121	150142	↑
CCDC117	150275	
DNAJB7	150353	*
CCDC12	151903	\ ↑
C4ORF23	152992	
RASGEF1B	153020	∀
SLC36A2	153201	<u>†</u>
C5ORF38	153571	I ↑
PLAC8L1	153770	↑
SLC2A12	154091	
AMOTL1	154810	∀
IQUB	154865	I ↑
ATP6V0E2	155066	I ↑
CLEC14A	161198	I ↑
TRPV3	162514	↑
DEDD2	162989	I ↑
LOC163233	163233	I ↑
DENND1B	163486	I ↑
DEANKL2	166614	I ↑
DCLK2	166614	I ↑
TRIM60	166655	 ↑
DCP2	167227	I ↑
PRSS35	167681	I ↑
FAM170B	170370	I ↑
S100Z	170570	 ↑
COMMD6	170622	 ↑
POLR3H	171568	l ↑
DTX3	196403	 ↑
PLBD2	196463	 ↑
PAOX CRAMD2	196743	
GRAMD2	196996	
<u>MLKL</u>	197259	<u> </u>

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

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
TPRX1	284355	<u>†</u>
KLK9	284366	<u>†</u>
HKR1	284459	<u>†</u>
BTBD8	284697	<u>,</u>
KIAA1107	284697	<u>,</u>
PRRT3	285368	į.
LOC285830	285830	*
CXORF59	286464	<u> </u>
<i>KLHL10</i>	317719	<u>†</u>
PHGDHL1	337867	<u>,</u>
KRTAP6-3	337968	<u>,</u>
NLRP10	338322	<u>,</u>
NLRP14	338323	<u>,</u>
DUPDI	338599	<u>,</u>
B4GALNT4	338707	<u>,</u>
ZNF678	339500	
MGC48998	339512	*
SLC6A19	340024	↑
UNCX	340260	↑
LHFPL1	340596	↑
PKD1L3	342372	↑
OR2T8	343172	↑
BARHL2	343472	 ↑
FAM174A	345757	l I
RSHL3	345895	↓
OR6V1	346517	l I
FAM195B	348262	↓
NUP43	348995	 ↑
DNAAF3	352909	 ↑
LCE3A	353142	 ↑
ZNF445	353274	 ↑
C18ORF34	374864	 ↑
HSD11B1L	374875	 ↑
FAM73A	374986	 ↑
RBM44	374980 375316	 ↑
PTAR1	375743	 ↑
		 ↑
CA13	377677	
ENTPD8	377841	
SUMO4	387082	<u> </u>
C1QTNF9B	387911	
SHISA2	387914	
C16ORF86	388284	
INCA1	388324	
RPL7P48	388401	↓
YPEL2	388403	Ţ
RPL21P131	388532	<u></u>
IQCF5	389124	<u> </u>

.Gene symbol	Entrez ID	Direction of genes (lead to pathology or virus replication)
OR51B6	390058	<u>,</u>
TRIM77	390231	<u>,</u>
OR6M1	390261	<u>,</u>
OR4K13	390433	<u>,</u>
OR5AU1	390445	<u> </u>
<i>GRID2IP</i>	392862	<u>,</u>
OR2A5	393046	<u>,</u>
FOXI2	399823	<u>,</u>
NF1L2	401007	<u>†</u>
FLJ41327	401045	į.
LOC401431	401431	*
PTPLAD2	401494	<u>†</u>
FAM166A	401565	<u></u>
OR51T1	401665	† ↑
OR2T2	401992	<u></u>
KPNA7	402569	· ↑
LOC401396	402582	
NOMO3	408050	*
CCL3L3	414062	·
CCDC88C	440193	\ ↑
EIF2AK4	440275	·
LOC440396	440396	<u>†</u>
RNASEK	440400	↑
MAP1LC3C	440738	↑
PIWIL3	440822	↑
LOC441239	441239	·
OR9K2	441639	·
OR4M1	441670	↑
OR2J3	442186	↑
PRY2	442862	I ↑
FLJ25758	497049	I ↑
CCDC157	550631	I ↑
PRR9	574414	I ↑
FAM25A	643161	I ↑
KIAA0754	643314	I ↑
ZNF862	643641	I ↑
FAM83G	644815	I ↑
KIAA0895L	653319	
LOC653712	653712	
PRAMEF16	654348	
SPATA31A3	727830	I ↑
HEATR7A	727957	I ↑
KRTAP1-4	728255	I ↑
CCDC169	728591	I ↑
LOC728683	728683	I ↑
PLIN4	729359	I ↑
ZNF812	729648	 ↑
ZIVF 012	129048	<u> </u>

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GTF2H2D	730394	<u> </u>
LOC730974	730974	↑
ZNF705B	100132396	↑
UPK3BL	100134938	↑
CMC4	100272147	↑
<i>USP17L10</i>	100287144	↑
SMIM18	100507341	<u>†</u>
SAA2-SAA4	100528017	<u>†</u>
IFNL4	101180976	<u> </u>

The 85 genes overlapped with the 784 DEGs are

Highlighted.