

**Supplementary Table 1:** Top 25 genes correlated with SCV2 levels per variant.

	Alpha	Beta_A	Beta_B	Epsilon	WA-1
0	CXCL3	CXCL3	NFKBIA	CXCL3	DRD5
1	TNFAIP3	ICAM1	PLAU	TNFAIP3	CD33
2	NFKBIA	NFKBIA	TNFAIP3	PLAU	AC103808.1
3	CXCL2	AC091544.4	CXCL3	NFKBIA	AL357873.1
4	DUSP8	TNFAIP3	EGR1	CXCL2	LRRIQ4
5	PLAU	UBASH3A	CXCL8	CXCL8	LINC02284
6	CXCL8	NRAP	AC127526.5	KLHL5	BEST3
7	KLF6	AC010624.3	NCOA7	DUSP8	U91328.3
8	ICAM1	AC008115.4	EDN1	CXCL1	AC084816.1
9	CXCL1	DUSP8	HES1	NFKBIZ	CXCL3
10	KLHL5	AL450270.1	KLF6	LCN2	TNFAIP3
11	EDN1	CXCL1	CXCL2	EGR1	ICAM1
12	BIRC3	CXCL8	NFKBIZ	TM4SF1	NFKBIA
13	NFKBIZ	EDN1	JUN	KLF6	EGR1
14	STX19	KLHL5	CXCL1	PIM3	LINC01354
15	CCN1	NR1D1	AP003498.2	ICAM1	AL139118.1
16	EGR1	NFKBIZ	DUSP8	AC127526.5	AP001001.1
17	TMEM156	CXCL2	ARRDC3	AP003498.2	RAB40AL
18	PIM3	BHLHE41	ICAM1	AC055720.1	AP006261.1
19	AC127526.5	EGR1	TM4SF1	AC010255.1	AC032044.1
20	IL6	BIRC3	EFNA1	LINC01814	NXPH3
21	IL32	PLAU	ZC3H12A	AC127537.1	MYRFL
22	CD83	KLF6	AL627171.2	EDN1	AC022509.2
23	NCOA7	HIST1H2BD	KLHL5	AC005062.1	TNF
24	DUSP10	IPCEF1	MT-ND3	SFRP4	AC021483.2

## Supplementary Table 2: qPCR primers

Gene	Forward	Reverse	Probe
FOXJ1	TCGTATGCCACGCTCATCTG	CGGATTGAATTCTGCCAGG T	
MUC5AC	CCTACAAAGCTGAGGCCTGT	GACCCTCCTCTCAATGGTGC	
CC10	TCCTCCACCATGAAACTCGC	AGGAGGGTTTCGATGACAC G	
p63	ACCTGGAAAACAATGCCCAGA	ACGAGGAGCCGTTCTGAAT C	
KRT5	GCATCACCGTTCCTGGGTAA	GACACACTTGACTGGCGAG A	
ACE2	CGAGTGGCTAATTTGAAACCAAG AA	ATTGATACGGCTCCGGGAC A	
TMPRSS2	ATGGCTTTGAACTCAGGGTC	TTAGCCCGTCTGCCCTCATT T	
SARS-CoV-2 N	AAATTTTGGGGACCAGGAAC	TGGCACCTGTGTAGGTCAA C	ATGTCGCGCATTGGCATGGA
SARS-CoV-2 E	ACAGGTACGTTAATAGTTAATAG CGT	ATATTGCAGCAGTACGCAC ACA	ACACTAGCCATCCTTACTGCGCT TCG