Table S3. Single nucleotide variants and their frequencies (%) in each studied specimen (Table S1), relative to MN908947.3 reference genome. *Position* genome position (MN908947.3 coordinates); *ref* reference base; *alt* alternative base; *aa* amino acid mutation and corresponding codon position (MN908947.3 coordinates); *ND* not detected.

position	ref	alt	gene	aa	13	14	15	16	42	43	44	46	52	53	54	55	56	62	63	64	65	66
670	Т	G	nsp1	S135R	ND	ND	ND	ND	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
694	Т	Α	nsp1	F143L	ND	ND	ND	ND	99.7	99.5	99.6	89.7	ND									
1027	Т	С	nsp2	P74P	ND	5.8	ND	ND														
1150	С	Τ	nsp2	G115G	ND	5.9	ND	ND														
1627	С	Τ	nsp2	L274L	ND	99.9	100.0	99.9	100.0	100.0	99.9	73.8	92.4	ND	99.8							
2388	С	Τ	nsp2	T528I	ND	17.6	15.5	100.0	ND													
2422	G	Τ	nsp2	K539N	ND	5.2	ND															
2470	С	Τ	nsp2	A555A	100.0	99.9	100.0	99.9	ND													
2524	Α	G	nsp2	T573T	ND	ND	ND	3.0	ND													
2790	С	Τ	nsp3	T24I	ND	ND	ND	ND	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2832	Α	G	nsp3	K38R	99.9	99.9	99.8	100.0	ND													
3037	С	Т	nsp3	F106F	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3648	Т	С	nsp3	I310T	ND	3.5	ND															
3859	Α	G	nsp3	Q380Q	ND	5.3																
4184	G	Α	nsp3	G489S	ND	100.0	100.0	100.0	100.0	100.0												
4321	С	Τ	nsp3	A534A	ND	100.0	100.0	99.9	100.0	100.0												
4358	С	Τ	nsp3	Q547*	ND	4.6	ND	ND														
4925	G	Τ	nsp3	D736Y	ND	5.0	ND	ND														
5386	Т	G	nsp3	A889A	99.8	100.0	100.0	100.0	ND													
5549	С	Α	nsp3	L944I	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND									
5803	Т	G	nsp3	Y1028*	ND	3.1	ND															
6041	G	С	nsp3	D1108H	ND	4.1	ND															
6354	С	Т	nsp3	S1212L	ND	3.4	ND															
6515	Т	Α	nsp3	L1266I	99.7	99.6	99.8	99.8	ND													
6675	С	Т	nsp3	T1319I	ND	ND	ND	ND	100.0	100.0	99.7	99.9	ND									
6822	С	Т	nsp3	T1368I	ND	3.2																
7312	G	Τ	nsp3	L1531F	ND	3.5	ND															
8302	Α	G	nsp3	K1861K	ND	ND	ND	ND	ND	ND	9.6	ND										
8354	С	Т	nsp3	R1879C	ND	3.2	ND	ND	ND	ND	ND	ND										
8393	G	Α	nsp3	A1892T	100.0	100.0	99.9	100.0	ND													
9196	Α	G	nsp4	T214T	ND	3.5	ND	ND														
9344	С	Т	nsp4	L264F	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0
9424	Α	G	nsp4	V290V	ND	ND	ND	ND	99.9	100.0	99.9	100.0	ND	ND	ND	ND	ND	100.0	100.0	100.0	99.9	99.9

9534	С	Т	nsp4	T327I	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9
9893	C	Ť	nsp4	L447F	ND	98.5	71.3	92.6	ND	100.0												
9950	G	C	nsp4	A466P	ND	3.0	ND															
10029	С	Т	nsp4	T492I	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9
10198	С	Т	nsp5ab	D48D	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND	ND	ND	ND	ND	99.9	100.0	100.0	100.0	100.0
10278	Т	Α	nsp5ab	L75H	ND	8.0	ND	ND	ND	ND	ND	ND										
10439	G	С	nsp5ab	A129P	ND	4.0	ND	ND														
10447	G	A	nsp5ab	R131R	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0
10448	С	Т	nsp5ab	P132S	ND	25.5	4.1	100.0	ND													
10449	С	Α	nsp5ab	P132H	100.0	99.9	100.0	99.9	100.0	99.9	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10848	G	Т	nsp5ab	C265F	ND	3.2	ND															
11075	Т	С	nsp6	F35L	ND	5.0	ND	ND														
11130	С	Т	nsp6	S53F	ND	3.9	ND															
11288	Т	Α	nsp6	S106T	ND	96.2	100.0	94.4	100.0	100.0	92.9	100.0	100.0	100.0	100.0							
11291	G	Α	nsp6	G107S	99.9	99.5	100.0	99.5	ND	ND	ND	ND	99.9	100.0	99.8	100.0	99.9	100.0	99.9	99.8	100.0	100.0
11296	Т	G	nsp6	F108L	ND	99.6	99.9	99.8	99.9	99.8	99.8	99.9	99.8	100.0	99.9							
11537	Α	G	nsp6	1189V	99.9	100.0	100.0	100.0	ND													
11948	С	Т	nsp7	H36Y	ND	ND	ND	ND	ND	ND	6.9	ND										
12049	С	Т	nsp7	N69N	ND	5.3	3.4	ND														
12160	G	Α	nsp8	E23E	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12499	С	Τ	nsp8	N136N	ND	100.0	77.8	79.6	ND	100.0												
12880	С	Т	nsp9	1651	ND	ND	ND	ND	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	99.9	100.0
12921	С	Т	nsp9	T79I	ND	3.9	ND															
13195	Т	С	nsp10	V57V	99.9	100.0	99.9	100.0	ND													
13299	Т	С	nsp10	L92S	ND	3.4	ND	ND	ND	ND												
13386	G	Τ	nsp10	G121V	ND	ND	ND	ND	34.0	ND												
13749	G	Τ	nsp12	K103N	ND	ND	ND	ND	7.9	ND												
13874	Т	С	nsp12	1145T	ND	3.7	ND															
13922	Α	Τ	nsp12	D161V	ND	ND	ND	ND	ND	ND	7.1	ND										
14408	С	Т	nsp12	P323L	100.0	99.9		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0
14625	С	Т	nsp12	C395C	ND	3.2	ND															
15007	G	Α	nsp12	D523N	5.7	4.4	5.8	4.1	ND	ND	ND	ND	4.9	3.8	5.6	5.3	6.4	5.2	5.2	5.5	6.5	6.4
15009	Т	С	nsp12	D523D	6.3	4.8	8.4	5.9	ND	ND	ND	ND	8.0	8.8	8.4	5.9	7.4	6.8	6.5	7.1	9.1	6.8
15100	G	Τ	nsp12	A554S	ND	5.3	ND															
15216	С	Τ	nsp12	S592S	ND	8.0	ND	41.1	ND	ND	ND	ND	ND	ND								
15237	С	Τ	nsp12	H599H	ND	3.1	ND															
15240	С	Τ	nsp12	N600N	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	ND									
15303	Α	G	nsp12	K621K	ND	ND	ND	ND	9.4	ND												

15377	G	Т	nsp12	C646F	ND	ND	ND	ND	ND	ND	ND	3.4	ND	ND								
15472	G	C	nsp12	G678R	ND	ND	ND	ND	ND	ND	ND	3.0	ND	ND								
15629	G	Α	nsp12	C730Y	ND	ND	ND	ND	8.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15714	С	Т	nsp12	L758L	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0
16206	G	Т	nsp12	E922D	ND	3.0	ND															
16977	Т	С	nsp13	V247V	ND	ND	ND	ND	ND	ND	ND	ND	24.4	ND								
17020	Т	С	nsp13	F262L	ND	3.8	ND															
17104	С	Т	nsp13	H290Y	ND	ND	ND	ND	ND	98.6	72.8	91.4	10.4	99.8								
17130	С	Т	nsp13	Y298Y	ND	ND	ND	ND	ND	ND	ND	ND	8.4	ND								
17410	С	Т	nsp13	R392C	ND	ND	ND	ND	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18160	G	Α	nsp14	D41N	ND	ND	ND	ND	ND	ND	ND	ND	20.1	ND								
18163	Α	G	nsp14	142V	98.9	99.7	96.3	100.0	100.0	100.0	99.9	100.0	100.0	100.0	99.9	100.0	100.0	100.0	99.9	100.0	99.9	100.0
18163	Α	Τ	nsp14	142L	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18416	Α	G	nsp14	D126G	ND	ND	ND	ND	ND	ND	ND	ND	21.5	ND								
18685	Т	G	nsp14	C216G	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND								
19024	С	Т	nsp14	L329F	ND	ND	ND	ND	ND	ND	ND	3.5	ND	ND								
19955	С	Т	nsp15	T112I	ND	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0							
20055	Α	G	nsp15	E145E	ND	98.8	100.0	99.5	98.6	96.8	ND	ND	ND	ND	ND							
20933	G	Т	nsp16	G92V	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND								
21077	С	Т	nsp16	T140I	ND	ND	ND	ND	ND	97.5	78.8	89.8	ND	99.9								
21381	С	Α	nsp16	S241S	ND	ND	ND	ND	ND	ND	ND	5.9	ND	ND								
21595	С	Т	S12	V11V	100.0	100.0	100.0	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21618	С	Т	S12	T19I	ND	ND	ND	ND	100.0	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
21641	G	Τ	S12	A27S	ND	99.8	98.5	100.0	99.7	99.8	99.4	98.3	100.0	100.0	99.4							
21762	С	Τ	S12	A67V	100.0	100.0	100.0	100.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21770	G	A	S12	V70I	ND	100.0	100.0	100.0	98.9	94.7	100.0	100.0	98.7	100.0	100.0							
21846	С	T	S12	T95I	100.0	100.0	100.0	99.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21869	G	T	S12	G103C	ND	3.8	ND															
21987	G	A	S12	G142D	ND	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0							
22200	T	G	S12	V213G	ND	ND 100.0	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0							
22578	G	A	S12	G339D	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	99.9	100.0		99.9	99.9
22599	G	A	S12	R346K		100.0			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22673	T	С	S12	S371P	99.9		100.0		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22674	С	T	S12	S371F	99.9	100.0	99.9	100.0		100.0	100.0		100.0		100.0	99.9	100.0		100.0	100.0	100.0	100.0
22679	T	С	S12	S373P	100.0	100.0	100.0	100.0		100.0	100.0			100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0
22686	C	T	S12	S375F	99.9	99.9	99.7	100.0	100.0	99.6	100.0	99.9	100.0	99.9	100.0		99.9	99.9	99.9	99.9	100.0	99.9
22688	A	G ^	S12	T376A	ND	ND	ND	ND		100.0		99.9	100.0		100.0			100.0	100.0	100.0	99.9	100.0
22775	G	Α	S12	D405N	ND	ND	ND	ND	T00.0	100.0	T00.0	100.0	99.7	100.0	100.0	99.9	100.0	99.6	T00.0	100.0	100.0	99.7

22786	Α	С	S12	R408S	ND	ND	ND	ND	100.0	99.7	99.4	99.9	99.9	100.0	99.9	99.9	99.9	99.9	99.8	99.9	99.9	99.9
22801	G	Α	S12	G413G	ND	7.3	ND	ND	ND	ND	ND	ND										
22813	G	Τ	S12	K417N	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
22882	Т	G	S12	N440K	100.0	100.0	100.0	100.0	ND													
22898	G	Α	S12	G446S	99.9	99.9	99.9	100.0	ND													
22992	G	Α	S12	S477N	100.0	99.9	100.0	99.9	ND													
22995	С	Α	S12	T478K	100.0	100.0	100.0	100.0	ND													
23013	Α	С	S12	E484A	100.0	99.9	99.9	100.0	ND													
23040	Α	G	S12	Q493R	99.9	100.0	100.0	100.0	ND													
23048	G	Α	S12	G496S					ND													
23055	Α	G	S12	Q498R				100.0	ND													
23063	Α	Т	S12	N501Y		100.0		100.0	ND													
23075	Т	С	S12	Y505H		100.0		100.0	ND													
23202	С	Α	S12	T547K		100.0	100.0	99.9	ND													
23243	С	Т	S12	P561S	ND	3.7	ND	ND														
23403	Α	G	S12	D614G	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0
23525	С	Т	S12	H655Y	99.9	100.0	100.0	100.0	100.0		100.0	100.0	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
23599	Т	G	S12	N679K	99.7	99.9	99.9	99.9	100.0	99.9	100.0	99.9	100.0	99.9	99.9	100.0	99.9	100.0	99.8	99.9	99.9	99.9
23604	С	Α	S12	P681H	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
23854	С	Α	S12	N764K	100.0	99.9	99.8	99.9	ND	ND	ND	ND	100.0	99.9	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0
23948	G	Т	S12	D796Y	100.0	100.0	100.0	100.0	ND	ND	ND	ND	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0
23997	С	Τ	S12	P812L	ND	3.7	ND															
24130	С	Α	S12	N856K	100.0	99.9	100.0	99.9	ND													
24424	Α	Τ	S12	Q954H	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0
24469	Т	Α	S12	N969K	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	99.8	100.0	100.0	100.0	100.0	100.0
24503	С	Τ	S12	L981F	100.0	100.0	100.0	99.9	ND													
24763	Т	С	S12	Y1067Y	ND	4.3	ND															
24794	G	Т	S12	A1078S	ND	4.1	ND															
25000	С	Τ	S12	D1146D	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0
25139	Т	G	S12	L1193V	3.5	4.2	5.2	73.3	ND													
25157	G	Т	S12	D1199Y	ND	3.2	ND															
25174	Α	G	S12	G1204G	ND	ND	ND	ND	ND	ND	9.4	ND										
25441	С	Τ	ORF3a	Q17*	ND	3.3	ND															
25555	G	Τ	ORF3a	V55F	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND									
25584	С	Τ	ORF3a	T64T	99.9	100.0	99.9	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0
25621	G	Α	ORF3a	V77I	ND	ND	ND	7.3	ND													
26060	С	Т	ORF3a	T223I	ND	ND	ND	ND	100.0	99.9	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0	100.0
26270	С	T	Е	T9I	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0

26374	Т	С	Е	C44R	ND	ND	ND	ND	3.8	ND												
26529	G	Α	М	D3N	ND	100.0	99.9	100.0	99.9	100.0	99.9	100.0	100.0	99.9	100.0							
26530	Α	G	М	D3G	99.9	100.0	100.0	99.9	ND													
26577	С	G	М	Q19E	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
26709	G	Α	М	A63T	100.0	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
26858	С	Т	М	F112F	ND	ND	ND	ND	99.9	100.0	99.8	100.0	ND									
26885	С	Т	М	N121N	ND	99.0	56.3	92.9	ND	99.9												
26895	С	Т	М	H125Y	ND	ND	ND	3.5	ND													
27038	Α	G	М	T172T	ND	100.0	100.0	100.0	100.0	99.9	99.3	54.3	91.8	ND	99.8							
27259	Α	С	ORF6	R20R	99.9	99.9	99.9	100.0	ND													
27438	Т	С	ORF7a	C15C	ND	34.0	21.5	99.9	ND													
27605	Т	С	ORF7a	V71A	ND	97.6	56.9	85.1	ND	99.9												
27697	С	Т	ORF7a	L102F	ND	5.1	3.1	ND														
27807	С	Т	ORF7b	L18L	100.0	100.0	100.0	100.0	ND	ND	ND	ND	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0
27969	Α	Т	ORF8	T26S	ND	8.6	ND															
28311	С	Т	Ν	P13L	100.0	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
28330	Α	G	Ν	G19G	ND	100.0	99.7	100.0	99.9	100.0	99.0	60.2	84.9	ND	99.9							
28363	Α	Т	Ν	G30G	99.4	100.0	99.4	99.4	ND	ND	ND	ND	99.4	100.0	99.4	100.0	100.0	ND	ND	ND	ND	ND
28370	Α	G	Ν	S33G	99.2	99.4	99.8	99.8	ND	ND	ND	ND	98.7	100.0	99.8	ND	99.6	100.0	99.9	99.7	100.0	100.0
28378	G	Α	Ν	A35A	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND									
28628	G	С	Ν	A119P	ND	4.9	ND	ND														
28636	Т	G	Ν	L121L	ND	6.3	ND	ND	ND	ND	ND	ND										
28637	С	G	Ν	P122A	ND	4.5	ND	ND	ND	ND	ND	ND										
28724	С	Т	Ν	P151S	ND	ND	ND	ND	100.0	100.0	100.0	100.0	ND									
28881	G	Α	Ν	R203K	100.0	99.8	99.9	99.9	99.9	99.9	99.9	100.0	99.9	100.0	100.0	100.0	100.0	99.9	99.9	100.0	100.0	99.9
28882	G	Α	N	R203R	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
28883	G	С	N	G204R	100.0	99.9	99.9	100.0	100.0	100.0	100.0	100.0	99.9	100.0	99.9	100.0	100.0	100.0	100.0	99.9	99.9	99.9
29510	Α	С	Ν	S413R	ND	ND	ND	ND	100.0	100.0	99.9	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0
29514	С	Т	N	A414V	ND	ND	ND	ND	3.6	ND												
29517	Α	G	Ν	D415G	6.8	ND	7.9	5.8	14.4	5.6	ND	7.8	12.6	10.3	9.2	10.6	7.6	6.8	8.2	11.8	6.4	10.1
29518	С	G	Ν	D415E	3.7	ND	3.7	ND	4.6	ND	ND	ND	4.1	3.1	3.5	4.0	ND	ND	ND	4.1	ND	3.2
29518	С	Т	Ν	D415D	4.7	ND	3.5	ND	4.6	ND	ND	ND	3.7	3.4	4.9	4.7	3.7	ND	3.4	5.2	ND	4.3
29580	С	Т	ORF10	V8A	ND	4.8	ND	ND	ND	ND												
29666	С	Т	ORF10	L37F	ND	46.3	15.2	100.0	ND													