

SARS-CoV-2 & Ad12.apr

		Section 1									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1)	1	10	20	30	40	50	60	70	80	97
	(1)	CCTATCTAATAATATACCTTATACTGGACTAGTGCCAATATTAAAATGAAGTGGGCGTAGTGTAATTTGATTGGGTGGAGGTGTGGCTTTGGCGT									
	(1)	-----									
		Section 2									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(98)	98	110	120	130	140	150	160	170	180	194
	(98)	GCTTGTAAGTTTGGGCGGATGAGGAAGTGGGGCGCGGCGTGGGAGCCGGGCGCGCCGGATGTGACGTTTTAGACGCCATTTTACACGGAAATGATGT									
	(1)	-----									
		Section 3									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(195)	195	200	210	220	230	240	250	260	270	291
	(195)	TTTTTGGGCGTTGTTTGTGCAAATTTTGTGTTTTAGGCGCGAAACTGAAATGCGGAAGTGAAAATTGATGACGGCAATTTTATTATAGGCGCGGAA									
	(1)	-----									
		Section 4									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(292)	292	300	310	320	330	340	350	360	370	388
	(292)	TATTTACCGAGGGCAGAGTGAACCTCTGAGCCTCTACGTGTGGGTTTCGATACGTGAGCGACGGGGAACTCCACGTTGGCGCTCAAAGGGCGCGTTT									
	(1)	-----									
		Section 5									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(389)	389	400	410	420	430	440	450	460	470	485
	(389)	ATTGTTCTGTCAGCTGATCGTTTGGGTATTTAATGCCGCCGTGTTTCGTCAAGAGGCCACTCTTGAGTGCCAGCGAGAAGAGTTTTCTCTGCCAGCTC									
	(1)	-----									
		Section 6									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(486)	486	500	510	520	530	540	550	560	570	582
	(486)	ATTTTCACGGCGCCATTATGAGAACTGAAATGACTCCCTTGGTCCTGTCGTATCAGGAAGCTGACGACATATTGGAGCATTGTTGGTGGACAACTTTTT									
	(1)	-----									
		Section 7									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(583)	583	590	600	610	620	630	640	650	660	679
	(583)	TAACGAGGTACCCAGTGATGATGATCTTTATGTTCCGTCTCTTTACGAACTGTATGATCTTGATGTGGAGTCTGCCGGTGAAGATAATAATGAACAG									
	(1)	-----									

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		Section 8									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(680)	680	690	700	710	720	730	740	750	760	776
	(680)	GCGGTGAATGAGTTTTTTTCCCGAATCGCTTATTTTAGCTGCCAGTGAGGGGTTGTTTTTACCGGAGCCTCCTGTACTTTCTCCTGTCTGTGAGCCTA									
	(1)	-----									
		Section 9									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(777)	777	790	800	810	820	830	840	850	860	873
	(777)	TTGGGGGCGAATGTATGCCACAACCTGCACCCTGAAGATATGGATTTATTGTGCTACGAGATGGGCTTTCCCTGTAGCGATTTCGGAAGACGAGCAAGA									
	(1)	-----									
		Section 10									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(874)	874	880	890	900	910	920	930	940	950	970
	(874)	CGAGAACGGAATGGCGCATGTTTCTGCATCCGCAGCTGCTGCTGCCGCTGATAGGGAACGTGAGGAGTTTCAGTTAGACCATCCAGAGTTGCCCGGA									
	(1)	-----									
		Section 11									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(971)	971	980	990	1000	1010	1020	1030	1040	1050	1067
	(971)	CACAATTGTAAGTCCTGTGAGCACCACCGGAATAGTACTGGAAATACTGACTTAATGTGCTCTTTGTGCTATCTGCGAGCCTACAACATGTTTCATTT									
	(1)	-----									
		Section 12									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1068)	1068	1080	1090	1100	1110	1120	1130	1140	1150	1164
	(1068)	ACAGTAAGTGTGCTATGGGAGGTGGGAGGTGATTTTTTTTTCTTAAGCAGTGAAAAATAATATTTTGTGTTTTTAGGTCCTGTTTCCGATAATGAG									
	(1)	-----									
		Section 13									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1165)	1165	1170	1180	1190	1200	1210	1220	1230	1240	1261
	(1165)	CCTGAACCTAATAGCACTTTGGATGGCGATGAGCGACCCTCACCCCGAAACTAGGAAGTGCGGTTCCAGAAGGAGTAATAAAACCTGTGCCTCAGC									
	(1)	-----									
		Section 14									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1262)	1262	1270	1280	1290	1300	1310	1320	1330	1340	1358
	(1262)	GGGTGACTGGGAGGCGTAGATGTGCTGTGGAAAGCATTTTGGATTTGATTCAAGAGGAAGAAAGAGAAACAAACAGTGCCCTGTTGATCTGTCAAGTAA									
	(1)	-----									

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		Section 15									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1359)	1359	1370	1380	1390	1400	1410	1420	1430	1440	1455
	(1359) (1)	ACGCCCTAGATGTAATTAATGGACTTTGAGCACCTGGGCAATAAAATAGGGGTAATGTGGTTTTTGTGAGTCATGTATAATAAACTGGTTTCGGTT -----									
		Section 16									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1456)	1456	1470	1480	1490	1500	1510	1520	1530	1540	1552
	(1456) (1)	GAAGTGTCTTGTTAATGTTTGGTGGGCGTGGTTAAACAGGGATATAAAGCTGGGTTGGTGTGCTTTGAATAGTTTCATCTTAGTAATGGAGTTGGA -----									
		Section 17									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1553)	1553	1560	1570	1580	1590	1600	1610	1620	1630	1649
	(1553) (1)	AACTGTGCTGCAAAGTTTTTCAGAGCGTTCGCCAGCTCTTGCAGTATACCTCTAAAAACACTTCAGGTTTTTGGAGGTATCTGTTTGGCTCTACCTTA -----									
		Section 18									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1650)	1650	1660	1670	1680	1690	1700	1710	1720	1730	1746
	(1650) (1)	AGCAAGGTGGTAAATAGGGTGAAAGAAGACTATAGAGAGGAATTTGAAAACATATTGGCCGACTGTCCAGGGCTTTTGGCTTCACTAGACCTTTGTT -----									
		Section 19									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1747)	1747	1760	1770	1780	1790	1800	1810	1820	1830	1843
	(1747) (1)	ACCACTTGGTGTTCAGGAAAAAGTGGTCAGATCCTTAGATTTTTTCATCTGTGGGACGAACGGTTGCTTCTATTGCTTTTTTGGCAACCATATTGGA -----									
		Section 20									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1844)	1844	1850	1860	1870	1880	1890	1900	1910	1920	1940
	(1844) (1)	TAAATGGAGCGAGAAATCCCACCTGAGTTGGGATTACATGCTGGATTACATGTCAATGCAGCTGTGGAGGGCATGGCTGAAGAGGAGGGTTTGCATT -----									
		Section 21									
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(1941)	1941	1950	1960	1970	1980	1990	2000	2010	2020	2037
	(1941) (1)	TACTCGCTGGCGCGGCCCTTTGACCATGCCGCCGCTGCCGACGTTGCAAGAGGAGAAGGAGGAGGAGCGGAACCTGCGGTGGTGGAGAAGTAAACAT -----									

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											Section 22	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2038)	2038	2050	2060	2070	2080	2090	2100	2110	2120	2134	
	(2038)	GGAACAACAGGTGCAAGAAGGCCATGTACTTGACTCTGGCGAAGGGCCTAGTTGCGCAGATGATAGAGATAAGCAGGAAAAAAAAAGAAAGTTTAAAG										
	(1)	-----										
											Section 23	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2135)	2135	2140	2150	2160	2170	2180	2190	2200	2210	2220	2231
	(2135)	GAAGCTGCTGTTCTTAGTAGGCTAACTGTTAATCTGATGTCCCGCCCGCGTTTGGAAGCTGTATATTGGCAGGAGTTGCAGGATGAATTTTCAGCGGG										
	(1)	-----										
											Section 24	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2232)	2232	2240	2250	2260	2270	2280	2290	2300	2310	2328	
	(2232)	GTGATATGCATTTACAGTACAAATACAGTTTTGAACAATTAAAAACCCACTGGTTAGAGCCATGGGAGGATATGGAGTGTGCTATTAAAGCTTTTGC										
	(1)	-----										
											Section 25	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2329)	2329	2340	2350	2360	2370	2380	2390	2400	2410	2425	
	(2329)	TAAATTGGCCTTACGTCCTGATTGTAGCTACAGAATTACTAAAACAGTAACCATTACTTCATGCGCCTATATTATAGGTAACGGGGCAATAGTTGAG										
	(1)	-----										
											Section 26	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2426)	2426	2440	2450	2460	2470	2480	2490	2500	2510	2522	
	(2426)	GTAGATACAAGCGACAGAGTTGCTTTTAGATGTGCAATGCAGGGTATGGGCCAGGGGTGGTGGGTTTGGATGGAATTACATTTATAAATGTTAGGT										
	(1)	-----										
											Section 27	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2523)	2523	2530	2540	2550	2560	2570	2580	2590	2600	2619	
	(2523)	TTGCTGGAGATAAGTTTAAAGGCATTATGTTGCAAGCTAATACCTGTCTTGTCTTGCATGGTGTCTTACTTTCTTAACTTTAGTAACATTTGTGTAGA										
	(1)	-----										
											Section 28	
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2620)	2620	2630	2640	2650	2660	2670	2680	2690	2700	2716	
	(2620)	GTCTTGGAATAAGGTTTCTGCTAGGGGCTGTACTTTTTATGGATGTTGGAAGGGTTTGGTGGGTAGACCAAAAAGTAACTGTCTGTAAAAAAGTGT										
	(1)	-----										

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											Section 29
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2717)	2717	2730	2740	2750	2760	2770	2780	2790	2800	2813
	(2717)	TTGTTTGAAAAATGTGTACTTGCTTTAATTGTAGAGGGGGATGCACATATTAGGCATAATGCAGCTTCAGAAAATGCCTGTTTTGTATTATTGAAGG									
	(1)	-----									
											Section 30
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2814)	2814	2820	2830	2840	2850	2860	2870	2880	2890	2900 2910
	(2814)	GAATGGCTATTTTAAAGCATAATATGGTTTGTGGGGTGTCTGATCAAACATATGCGACGTTTTGTTACCTGTGCTGATGGAAATTGTCATACCTTAA									
	(1)	-----									
											Section 31
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(2911)	2911	2920	2930	2940	2950	2960	2970	2980	2990	3007
	(2911)	AACTGTTTCATATTGTGAGCCACAGTAGACATTGTTGGCCTGTATGTGATCATAACATGTTTATGCGCTGTACCATACATTTAGGCTTAAGGCGGGGT									
	(1)	-----									
											Section 32
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3008)	3008	3020	3030	3040	3050	3060	3070	3080	3090	3104
	(3008)	ATGTTTAGACCTTCCCAATGTAACCTTCAGCCACTCAAACATTATGCTGGAACCTGAAGTGTTTTCTAGAGTGTGTTTAAATGGGGTATTTGATTTAT									
	(1)	-----									
											Section 33
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3105)	3105	3110	3120	3130	3140	3150	3160	3170	3180	3190 3201
	(3105)	CTGTGGAATTATGTAAGGTTATAAGATATAATGATGATACTCGACATCGTTGCCGACAGTGTGAGTGTGGTAGCAGTCATCTAGAACTTCGTCCCAT									
	(1)	-----									
											Section 34
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3202)	3202	3210	3220	3230	3240	3250	3260	3270	3280	3298
	(3202)	TGTGCTAAATGTAACCTGAGGAGCTGAGAAGTGACCACCTTACCCTGTCTTGCCTGCGGACTGACTATGAGTCAAGTGATGAAGACGACAACCTGAGGT									
	(1)	-----									
											Section 35
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3299)	3299	3310	3320	3330	3340	3350	3360	3370	3380	3395
	(3299)	AAGTGGGTGGAGCTAGGTGGGATTATAAAAGGCTGGAAGTCAACTAAAAATTGTTTTTGTCTTTTAAACAGCACGATGAACGGAACCTACTCAGAACA									
	(1)	-----									

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Section 36												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3396)	3396	3410	3420	3430	3440	3450	3460	3470	3480	3492	
	(3396)	ACGCTGCGCTTTTTGATGGAGGGGTTTTAGCCCTTATTTGACTTCCAGGTTACCATATTGGGCCGGAGTACGTAGAATGTGGTAGGATCTACAGT										
	(1)	-----										
Section 37												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3493)	3493	3500	3510	3520	3530	3540	3550	3560	3570	3589	
	(3493)	GGACGGTCGACCTGTGGCACCTGCAAATTCATCAACATTAACTATGCAACTATTGGACCCTCGCCTTTGGATACCGCCGCCGCCGCTGCAGCTTCC										
	(1)	-----										
Section 38												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3590)	3590	3600	3610	3620	3630	3640	3650	3660	3670	3686	
	(3590)	GCGGCCGCTTCTACGGCTCGCAGTATGGCAGCTGATTTACAGCTTCTACAATCACTTGGCTTCGAATGCTGTGACACGCACCGCAGTTCGAGAGGACA										
	(1)	-----										
Section 39												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3687)	3687	3700	3710	3720	3730	3740	3750	3760	3770	3783	
	(3687)	TTCTGACTGTTATGCTTGCCAAGCTTGAACTCTAACTGCTCAGCTGGAAAGAGCTATCGCAAAAGGTTGAGGAATTAG--CTG-ATGCTACTAGCCCA										
	(1)	-----ATTAAAGGTTTATACCTTCCCAGGTAACAAACCAACCAACTTTCGATCTCTTG										
Section 40												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3784)	3784	3790	3800	3810	3820	3830	3840	3850	3860	3870	3880
	(3781)	TAC-----CCAGCCCAACCTGTAACCCAATAAAGAAAAAACTTAAATTTGATGTTGTT--ATGAATC---TTATTGATACTT-----										
	(54)	TAGATCTGTTCTCTAAACGAACCTTAAATCTGTGTGGCTGTCACTCGGCTGCATGCTTAGTGCACTCACGCAGTATAATTATACTAATTACTGT										
Section 41												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3881)	3881	3890	3900	3910	3920	3930	3940	3950	3960	3977	
	(3856)	GTTTTTCTGACATGGTAAGCTCTTGACCAACCGTTCCCTATCAT--TAAAGAACACGTTGAAAGTGTTCAGTATT--TTGTAAAGATGAGCCTGTAT										
	(151)	CGTTGACAGGACACG--AGTAACTCTGTCTATCTTCCTGCAAGGCTGCTTACGGTTTCGTCCGTGT-TGCAGCCGATCATCAGCACATCTAGG---TTT										
Section 42												
Ad 12 X73487 SARS-CoV-2 NC_045512.2	(3978)	3978	3990	4000	4010	4020	4030	4040	4050	4060	4074	
	(3949)	-ATTAAAGGTACATTGGCATTAGGCCATCTTTTGGGA---TGAAGGTAGGACCAATTGAAGGGCTTCATGTTCCGGGTAGTGT-----TGTAGATAA-										
	(241)	CGTCCGGGT--GTGACGAAAGGTAAAGATGGAG-AGCCTGTGCCCTGGTTTCAACG-AGAAAACACACGTCCAACTCAGTTTGCCTGTTTACAGGT										

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Section 43																																										
Ad 12 X73487	(4075)	4075	4080	4090	4100	4110	4120	4130	4140	4150	4160	4171																														
SARS-CoV-2 NC_045512.2	(4035)	TC	CAGT	CATAGCA--	ACAACGCTGGG	CATGG-TGAT	TTA	AATATA	TCTT-T	TAA	CAACCAAG	CTAATTG-CTA	ATGGAAG-AC	CTTTAGTAT	TAGGTA	TT																										
	(334)	TC	GC	GACGT	GCTCTCGT	ACGTG	GCTTT	GAGACTCCG	TGG	AGGAGG	TCTTA	TCAGAGG	CACGT-CA	ACATCTT	AAAGAT	GGCACTT	GTTGGCTTAGGTA	GAG																								
Section 44																																										
Ad 12 X73487	(4172)	4172	4180	4190	4200	4210	4220	4230	4240	4250		4268																														
SARS-CoV-2 NC_045512.2	(4126)	GAT	A-AAA	CGGT	TAAAGC	TGGGTGGGA	TGCAT	CCGAGG	TGACATGAT	AT--GA	AGTTT	TGATTGT	ATTTGAG	ATTG	GCAA-TG	TTAC	CTG	CCCAAT	ATC																							
	(430)	AG	TTG	AAA	AGG	CGCTTT	TGCC	TCAAC	TTGA	ACAG	CCCC	TATGT	GTTCA	TAA	AGCTT	-----CG	GATGC	T	CGA	ACTG	CACCTCA	TGGT	CATGTT	ATGG																		
Section 45																																										
Ad 12 X73487	(4269)	4269	4280	4290	4300	4310	4320	4330	4340	4350		4365																														
SARS-CoV-2 NC_045512.2	(4219)	T	CTTCT	TGG	ATT	CAT	AT-TGT	GGAG	AACCA	C	GAA	AAC	GGT	GT--AG	CCAGT	ACACT	TGG	GAA-A	TT	TGT	CAT	GGA	GT	TTAGA	AAGGAA	AGGCATG	GAA															
	(522)	T	TGAGC	TGG	TAG	CAG	AAC	T-C	GAAG	GCATT	C	AGT	ACG	GTC	GT	AGT	G	TGAG	ACACT	TGG	TGTCC	TT	GTC	CCT	CAT	GT	-----GGGC	GAA														
Section 46																																										
Ad 12 X73487	(4366)	4366	4380	4390	4400	4410	4420	4430	4440	4450		4462																														
SARS-CoV-2 NC_045512.2	(4312)	AAAC	TTG	GAAAC	GC	CTTT	GTGA	CTT	CCCAAA	TTT	TTC	CAT	AC	ACT	CAT	CCATT	A	TAT	GG	CA-A	TT	G	GAC	C	GCG	AG	CAG	CGGC	-TT	GAG	C	AAAA	AT	GT								
	(605)	A	TAC	CAG	TG---	GC	--TT	TACCG	C	AAG	TTCT	T	TTC	GTA	GA	ACGG	T	AATA	AA	-----G	GAG	CT	GGT	GG	C	CAT	AG	TTA	CGGC	GCC	GAT	CTAA	-A	GT								
Section 47																																										
Ad 12 X73487	(4463)	4463	4470	4480	4490	4500	4510	4520	4530	4540		4559																														
SARS-CoV-2 NC_045512.2	(4407)	TT	T	CTG	GAT	CAG	AA-AC	ATCAT	-AG	TTG	TGG	TC	TAG	AG	TT	AGG	T	CA	TC	GT-A	GG	AC	AACTTA	AC	AAA	TTT	TAG	G	ACACA	G	C	GTT	C	CAGATT	GTG	GA	AT					
	(690)	CAT	TT	TG	ACT	TAG	GCG	AC	GAGC	TT	G	CAC	TG	AT	C	TT	ATGA	AG	ATTT	TC	AAG	AAA	AC	T	GGA	AC	ACT	AA	ACATAG	G	CAGT	G	T	GTT	AC	---CC	GTG	AACT				
Section 48																																										
Ad 12 X73487	(4560)	4560	4570	4580	4590	4600	4610	4620	4630	4640		4656																														
SARS-CoV-2 NC_045512.2	(4501)	AAT	AGT	T	CCCTC	TGG	T	CCT	GGG	CA--T	AATTT	CCC	T	CACAA	AT	TTG	CA	TT	TC	CA	ATT	TC	CAA	AG	ATT	T	AA	T	T	C	AGA	----	TGG	G	GGA	ATC	----	ATG	T	CCA		
	(784)	CAT	GCG	T	GAGCT	T	AAC	GGA	GGG	G	CA	TAC	ACT	CG	CTA	T	G-TCG	AT	AACA	A	CTT	C	TGT	G	CCCC	T	GAT	GG	C	T	ACCC	T	CT	TG	AGT	G	CAT	TAA	AG	ACCT	T	CT
Section 49																																										
Ad 12 X73487	(4657)	4657	4670	4680	4690	4700	4710	4720	4730	4740		4753																														
SARS-CoV-2 NC_045512.2	(4587)	--	CTT	G	GGA-AC	AA	TAAAAA	AAA	CAG	TTT	C--T	G	GAGC	AGGT	G	TA	ACC	A	GCT	GGG	C	AGA	AAG	CAA	AT	TA	CG	C	AA	C	AA	CT	G	A	GA	CTT	CCCA	CAG	CCA	A		
	(880)	AG	CAC	GT	GCT	GGT	AA	AGCTTC	ATG	CAC	TTT	G	TCC	GA	CA	ACT	G	ACT	TTA	TT	G	ACA	CTA	A	AG	GGG	T	TA	TAC	TG	CTG	C	CGT	GA	ACAT	GAG	CAT	GAA				

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		Section 50											
		(4754)	4754	4760	4770	4780	4790	4800	4810	4820	4830	4840	4850
Ad 12 X73487	(4679)	GTTGGTTCCATAAATTACCCTCAATTACAGGTTGCAAGTGATAGTTTA-ACGAGGTGCAGCTGCCGTCTTCGTGGAGAAAGCGGAGGCCACCTTCATTCATC											
SARS-CoV-2 NC_045512.2	(977)	ATTGCTTGGTACACGGAACTTCTGAAAGAGG--CTATGAATTGCAGACACCTTT---TGAAATTAATTTGGCAAGAAATTTGACACCTTC---A											
		Section 51											
		(4851)	4851	4860	4870	4880	4890	4900	4910	4920	4930	4940	4947
Ad 12 X73487	(4775)	ATTTTGTCTGGACGCGGATGTTTTGCTTGGCCAGTTCCCTTAAACAGACGCTCTCCGCCTAAGGAAGTAACTCTTGTAAAGATTGAAAATTTTAAAGTG											
SARS-CoV-2 NC_045512.2	(1065)	ATGGG--GAATGTCCAAAATTTGTAT-----TTCCCTTAAATTTCATAATCAAGACTATTCAAAGGTTGAAAAG----AAAAGCTTGAATGG											
		Section 52											
		(4948)	4948	4960	4970	4980	4990	5000	5010	5020	5030	5040	5044
Ad 12 X73487	(4872)	GCTTTTAGGCCATCGGCATAGGCCATGTTGGTCAGGGTTTGTGTT-CAGCAGTTGCAAGCGATCCCATAGCTCAGTTATATTTTCTATGCCATCTCGAT											
SARS-CoV-2 NC_045512.2	(1150)	CTTTATGGGTAGAATTC-GATCTGTCTATCCAGTTGCGT-CACCAAATGAATGCAACCAATGTGCCTTTCAACT-CTCATGAAGTGTGATCATTTG											
		Section 53											
		(5045)	5045	5050	5060	5070	5080	5090	5100	5110	5120	5130	5141
Ad 12 X73487	(4968)	CCAGCAAACTTTCCTCCTTGCCTGGGTTTGGCTGCTGTTGCTGTAAAG-----GAACGAGGCCTGAGCATCCAAATGGACGAGGGTTTTTGTCTTCC											
SARS-CoV-2 NC_045512.2	(1244)	GGTG-AAACTTTCATGTCAGACGGG-----GATTTTGTAAAGCCACTTGCGAATTTTGTGTCATGAGAAATTTGACTAAAGAAAGGTGCCACTA											
		Section 54											
		(5142)	5142	5150	5160	5170	5180	5190	5200	5210	5220	5230	5238
Ad 12 X73487	(5060)	AGGGACGTAAATGTGCGCTCAGGGTTGTTTCTGGTCAAGTGAATGGATGCGCTCCCTGGTTGAGCGCTGGCCAGTGTGCGCTTTAACTGAGGCGGCT											
SARS-CoV-2 NC_045512.2	(1332)	CTTGTTGTTACTTA--CCCAGAAATGCTGTTGTTAAATTTA-----T--T-GTCCAGCATG-----TCACAATTCAAGTAGGACCTGAGCATAGT											
		Section 55											
		(5239)	5239	5250	5260	5270	5280	5290	5300	5310	5320	5330	5335
Ad 12 X73487	(5157)	GGTGCCTGAAAGCGCTGTCTTCTCCCTGTGCTTCTGCAAGGTAGCATTTTAAACATAAGATCATAGACAAAGCCTCTGTAGCG--TGGCCCTTTAGCCC											
SARS-CoV-2 NC_045512.2	(1415)	CTTGCCGAAATACCAT----AAAGAACTCTGCTTGAAAGCCATTCTTCGTAAAG-GGTGGTCGCACTATT--GCCTTTGGAGGCTGTGTGTCTCTTAT											
		Section 56											
		(5336)	5336	5350	5360	5370	5380	5390	5400	5410	5420	5430	5432
Ad 12 X73487	(5252)	GTATTTTTCTTTTGGAGGTGCTCCGCGAGTCAGGACACT----GAAGGCATTAAAGGGCGTACAGTTTTTGGAGCCAAAAAACAGATTCTGGAGAAAT											
SARS-CoV-2 NC_045512.2	(1505)	GTTGGTTGCCATAACAAAGTGTGCTATTGTTCCACGTGCTAGCGCTAAACATAGGTTGTAAACATACAGGTGTTGTTGGAGAGGTTCCGAGGTC											

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												Section 57																																
	(5433)	5433	5440	5450	5460	5470	5480	5490	5500	5510	5529																																	
Ad 12 X73487	(5345)	AAGCATCTG--	C-G	CCACAA	TA	ACTA	CAAA	CAG	TTTTC	ACAT	TCAAC	TGAC	CAGGTCAG	CTCAG	GACAT	TGATGGA	TCAAA	AAC	AAGTT	TCC	CT	CCGT	A																					
SARS-CoV-2 NC_045512.2	(1602)	TTAATGACAAC	CTT	CTTG	AAAT	ACTC	CAAA	AAG	--AG	AAAG	TCAAC	--AT	CAATATT	GT	TGGT	GACT	TTAA	ACTT	AATG	AAGA	-GAT	---	C	CCAT	T																			
												Section 58																																
	(5530)	5530	5540	5550	5560	5570	5580	5590	5600	5610	5626																																	
Ad 12 X73487	(5439)	C	TTTTT	T	GATG	C	G	TTTT	CT	TAC	----	CTT	GCGAC	T	CCATA	AGG	GG	CG	TCCTT	T	CTC	TGT	GACAA	-	AAAG	A	CTG	TCAG	-	TGTC	TCCG	T	AT	ACAGAT	T									
SARS-CoV-2 NC_045512.2	(1691)	A	TTTTT	G	GCAT	C	T	TTTT	TC	TG	CTTCCA	CAAG	TGCTT	T	TGTGGA	AA	CT	GT	GAAAGG	T	---	T	TG	GATT	AT	AAAG	-	CAT	TCA	AACAA	A	T	TGT	TGA	ATCCTGT	T								
												Section 59																																
	(5627)	5627	5640	5650	5660	5670	5680	5690	5700	5710	5723																																	
Ad 12 X73487	(5528)	TAAGGGG	TCT	ATCC	TTC	-	AGT	GGTA	---	T	CCGCGG	TCCCT	CCT	CGT	AC	AGGA	TTCTG	ACC	ACT	CTG	ACACA	AAAG	CTCT	AGTCCA	AGCA	AGTA	CAA																	
SARS-CoV-2 NC_045512.2	(1784)	GGTAATT	T	TAA	AGT	T	CA	AAA	GG	AA	AAGC	T	AAAAA	AGGTG	CCT	G	AA	T	TTGG	T	GAAC	A	GA	AA	TC	A	ATACTG	A	GT	CTCT	TTATGC	A	TTTGCAT	C	AG									
												Section 60																																
	(5724)	5724	5730	5740	5750	5760	5770	5780	5790	5800	5820																																	
Ad 12 X73487	(5621)	AGG	AA	GC	CACATGG	GA	AGG	T	ACCGA	T	CGT	TGTTA	AT	TAAAG	G	TTAGA	ACTTTCT	A	AGG	TGTG	TAAACA	----	C	ATG	CTC	CT	TCTT	C	AGCGTCC															
SARS-CoV-2 NC_045512.2	(1881)	AGG	CT	GC	TCGTGTT	G	T	AC	GAT	CAATT	T	TCT	CCC	G	CACT	-	CTT	G	AAACT	GTCTCA	A	-	ATTC	TGTG	CGT	GTTTT	TACAG	A	AGG	CCG	CT	ATAA	CA	ATACTA										
												Section 61																																
	(5821)	5821	5830	5840	5850	5860	5870	5880	5890	5900	5917																																	
Ad 12 X73487	(5713)	--	AT	GAAT	G	T	GATT	GGT	TT	G--	T	AGG	TG	TAA	GT	CA	CG	TG	TT	CAC	AA	-	TTTT	CT	GG	TG	G	TGG	CTATA	AA	AGGGG	CG	GGT	CCTT	-	GGT	CTT	CA	-	TCG				
SARS-CoV-2 NC_045512.2	(1976)	GATG	GAAT	T	T	CA	CA	GTA	TT	CAC	T	GA	G	ACT	CA	T	TGA	--	TG	CT	ATG	ATG	TT	CA	C	ATC	TG	ATTT	G	GCTACT	AA	CAATCTA	G	T	TGTAAT	GG	C	CT	CA	T	TAC			
												Section 62																																
	(5918)	5918	5930	5940	5950	5960	5970	5980	5990	6000	6014																																	
Ad 12 X73487	(5803)	CTT	T	CT	T	TC	TGC	TT	C	GCT	TG	-	TT	T	ACG	AGC	CCAACT	GGT	TGGG	T	GAG	TACA	C	G	CGT	CA	AG	GC	AGG	C	ATT	ACCT	CT	G	TACT	CA	ACGT	G	TCAG	TTTCT				
SARS-CoV-2 NC_045512.2	(2071)	AGG	TGG	T	G	TTG	TT	C	AG	TT	GAC	T	T	CG	-	CAG	TGGCTA	ACT	T	AACAT	-	CTT	TGG	C	ACT	GT	TTT	AT	G	AAAA	AC	-	TCA	AAC	C	GT	C	CTTGA	TTG	G	CTT	GAAG--		
												Section 63																																
	(6015)	6015	6020	6030	6040	6050	6060	6070	6080	6090	6111																																	
Ad 12 X73487	(5899)	AT	AA	AC--	G	AT	G	AG	G	ATTT	GAT	GTTT	AAT	CG	CCC	CG	CT	GCAA	--	TT	CTT	TC	ATT	AGG	CT	-	TT	C	--	TT	C	ATT	TGA	TCAG	AAAAA	ACT	ATTTT	TTT	G					
SARS-CoV-2 NC_045512.2	(2163)	AG	AA	G	TTTA	AG	GA	AG	G	T	TAGA	GTTT	CT	T	AG	AGA	CG	G	TGGG	AA	ATT	G	T	TAA	ATT	TAT	CT	CA	AC	CT	G	T	G	CTT	G	TGA	AATT	G	T	CGGTGG	ACAAA	TT	-	G

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Section 64												
Ad 12 X73487	(6112)	6112	6120	6130	6140	6150	6160	6170	6180	6190	6208	
SARS-CoV-2 NC_045512.2	(5989)	TTATCTA-GTTTGTAGCAAAGATCCGTACAAGG-CATTGGAAAGCAGCTTGGCTATAGATCTTAGGGTTTGATT-TTGTGCCCTATC	GGCCCGTT									
	(2259)	TCACTGTGCAAAAGAAATTAAAGGAGAGTGTTTCAGACATTC--TTTAAGCTTGTAAATAAATTTTGGCTTTG-TGTGCTGACTCTATC	ATTATTGG									
Section 65												
Ad 12 X73487	(6209)	6209	6220	6230	6240	6250	6260	6270	6280	6290	6305	
SARS-CoV-2 NC_045512.2	(6083)	CTTTTGC GCGCAAATTAGAGTTGCACTA--T---TGC GTGCGCAGGCATTTC-----CAGTGGGGAAAAATGGTGGTGCGCTCGT	CAGATAGCAAAG-									
	(2353)	TGGAGCTAAACTTAAAGCCTTGAATTAGGTGAAACATTTGTCAAGCACTCAAAGGGATTGTACAAGAAATGTGTTAAATC----	CAGAGAAAGAAAC									
Section 66												
Ad 12 X73487	(6306)	6306	6320	6330	6340	6350	6360	6370	6380	6390	6402	
SARS-CoV-2 NC_045512.2	(6169)	CGTAAGCGCCACC GCGATTATGCAGTGTAAACCAGATCTACGCTGGTAACTACTTCAACGCGCAAGCTTTCA----TT----GGTCC	AGGCTAAACG									
	(2446)	TGGCCTACTCATGCTCTAAAGGCCCAA---AGAAATATCTCTTAGAGGGAGAAACACTTCCACAGAAAGTTTAAACAGAGGAAG	TTGTCTTG									
Section 67												
Ad 12 X73487	(6403)	6403	6410	6420	6430	6440	6450	6460	6470	6480	6499	
SARS-CoV-2 NC_045512.2	(6258)	---ACCGCCTTTTCTAGAACAAAA-AGGAGGAAGAACATCCAACTGATTTTCACTCGGGGGTCTGGCATCTATAGTAAAAATGC	CAGGACAAAGATT									
	(2540)	AAAACCTGGTGAATTTACAACCAATTAGAACAACTACTAGTGAAAGCTGTTGAAGCTCATTGGTTGTGTACACAGTTTGTATTAA	CGGCTTA----TG									
Section 68												
Ad 12 X73487	(6500)	6500	6510	6520	6530	6540	6550	6560	6570	6580	6596	
SARS-CoV-2 NC_045512.2	(6351)	TTTGTCAAAAATATCAATTTTGCAAGTGTAAATTTTCCA--GGGCCACCTGCCATTGC--CGCACGGCCAAATGCC--CGCTCATAG	GGGTTAAGGGGA									
	(2633)	TTGCTCGAAATCAAGACACAGAAA-GTACTGTGCCCTTGCACTAATATGATGTAACAACAAATACCTTACACCTCAAAGGC	GGTGCACCAACA									
Section 69												
Ad 12 X73487	(6597)	6597	6610	6620	6630	6640	6650	6660	6670	6680	6693	
SARS-CoV-2 NC_045512.2	(6442)	GG----ACCCCAAAGC ATGGGGTG TGTGA GGCCGATGCA TACATG CCGCA AATATC ATATACATATATG GGCTCTTTTAGTACTCC	TATGT AAGTA									
	(2729)	AAGGTTAC TTTTG GTG ATGACAC- TGTGATAG AAG- TGCAAGGT TACAAG AGTGTGA ATATCAC TT--TTGA ACTTGA TGAAAGGAT	TGATA AAGTA									
Section 70												
Ad 12 X73487	(6694)	6694	6700	6710	6720	6730	6740	6750	6760	6770	6780	6790
SARS-CoV-2 NC_045512.2	(6535)	GGATAGCACCTGCCGCACGAATGCTGGCGCGAACGTATCATATAGCTCATGTGAAGGCGCAGATGTTGGGCCAAGATGTGTGCGCTGT	GTGTT									
	(2822)	CTTAATGAGAAAG-TGCTCTGCC TATACAGTTGAACTCGTTACAGAAAGTAAATGAGTTTCGC-CTGTGTGTGTGCAGATGCTGTCATAAAAAC	TTGCA									

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		Section 71																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		(6791)	6791	6800	6810	6820	6830	6840	6850	6860	6870	6887																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Ad 12 X73487	(6632)	TTTC	G	GCG	C	G	T	A	C	A	A	A	A	T	T	G	T	C	T	G	A	A	A	T	T	G	T	C	T	G	A	A	A	T	T	G	T	G	A	G	A	G	T	T	A	G	A	A	T	G	T	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	G	T	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C	A	C	A	T	T	A	A	A	T	G	T	C	C	C	A	A	G	A	C

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Section 78														
	(7470)	7470	7480	7490	7500	7510	7520	7530	7540	7550	7566			
Ad 12 X73487	(7291)	TTAA	TATTGTG	TCCTACTATATAC	AACTCTACA	AATCTTG	GCTCAC	CTTAAT	TGCAGGGGC	TC	TTTTAAGATCTTTCGTAG---	GAAAGATCTTTCAA		
SARS-CoV-2 NC_045512.2	(3556)	TAAAG	TGGGTG	G	TAGTTGTGTTT	AA	GCGGACA	CAATCTT	GCTAAAC	ACTGTCTT	CATGTTGTC	GGCCCAATGTTTAACA	AAAGGTGAAGACATTTCAA	
Section 79														
	(7567)	7567	7580	7590	7600	7610	7620	7630	7640	7650	7663			
Ad 12 X73487	(7385)	GC---	GC	GACTAG	TCCGTTTTCTT	CTTGAGCC	CATTGAG	ACAAGTGTG	GA	TTTTTTT	TGTAA	AAAA	GT-CATCCAAAGATCAGTAGCTAAGGAGGTT	
SARS-CoV-2 NC_045512.2	(3653)	CTTCTTAA	GAGTGC	T	TATGAAAA	TTT	T	TAATCAGCA	CGAAG	TTCTACTTG	CA	CCATTATTATCAGCTGGTATTTTTG	GTGCTGACCTATACAT-TC	
Section 80														
	(7664)	7664	7670	7680	7690	7700	7710	7720	7730	7740	7750	7760		
Ad 12 X73487	(7477)	TG	TAA	CGGTTTC	TATAGGTAC	GAACTGTTG	ACCGAC	CTTCATTT	T	TCTGGGG	T	TAA	GCAGTAGAAAGTAGAGTCTTTTTCCCATTTGGTCCC	
SARS-CoV-2 NC_045512.2	(3748)	TT	TAA	GAGTTTG	T	TAGATAC	TGTT	CGCACAA	ATGTCT	ACTTAGCTGTCT	TTGAT	AAAAATCTCT	ATGACAAACTTGTTC	CAAGCTTTTGGGAA--A
Section 81														
	(7761)	7761	7770	7780	7790	7800	7810	7820	7830	7840	7857			
Ad 12 X73487	(7574)	AT	CCAAGT	TCTAA	TGCAAGTTGT	AAGGCAT	GTTTG	GACAAGATT	GTCAT	CCCCAGACAGT	TT	CATCAC	CAGCATAAATGGGACAAAGTTGCTTTC---	C
SARS-CoV-2 NC_045512.2	(3842)	AT	GAAAGAGT	GAA	AGCAAGTTGA	ACA-AA	AGATCG	CTGAGATT	CCT	AAA--	GAGGAAG	TTAAGC	-CATTTATAACTGAAAGTAAAC	-CTTCAGTTG
Section 82														
	(7858)	7858	7870	7880	7890	7900	7910	7920	7930	7940	7954			
Ad 12 X73487	(7668)	AA	AT	GCCCCA	TCCAGGTGTAG	GTTTCTAC	ATCATAG	GTAA	TAAAA	GGCGCTCAGT	GCGAGGATG	CGAAC	CGATTGGGA	AAAAGTGGATCTCTCTGC
SARS-CoV-2 NC_045512.2	(3933)	AA	CAGAGAAAA	A	CAAGATGATAG	A	GAAAAAT	-CA	AAGCTTGT	GT	TGAAG	-----AGTT--	ACA--AC--	AACTCTGGAAGAACTAAGTTCCTCACA
Section 83														
	(7955)	7955	7960	7970	7980	7990	8000	8010	8020	8030	8040	8051		
Ad 12 X73487	(7765)	C	ACCAGTTTG	GAA	GAATGGCTG	TGTGAT	GAAAG	TAGAAATCT	CGTCGGCG	G	GACAGAGCAT	TCATGCTGA	TGTTTGTAA	AAGCGTGGCAGTGT
SARS-CoV-2 NC_045512.2	(4016)	G	AAAACCTTG	TTACTTT	TATATTGAC	ATTAATG	GC	AA-T-----CT	TCATCCAG	A	TTCTGTCAC	CTCTGTTAGTGACAT	TGA---	CAT-CACTTCTTT
Section 84														
	(8052)	8052	8060	8070	8080	8090	8100	8110	8120	8130	8148			
Ad 12 X73487	(7862)	CGCATC	GTTGC	ACGGGCTG	TATCTGT	TGAA	TGA	G	GTGTACCT	GG	CGG	CCTCGCACCAGAAAGCAG	A-TGG	GAAAATCAATACCACTTGGCAGCTGCC
SARS-CoV-2 NC_045512.2	(4102)	AAA---	GAAAG	ATGCT	CCATAT	ATAGTGG	TGATGT	TGTTCAAG	AGG	GTGTTT-----	TAAC	CT-GCTGTGGTT	ATACCACT	TAC-TAAAGGCT

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												Section 85
	(8149)	8149	8160	8170	8180	8190	8200	8210	8220	8230	8245	
Ad 12 X73487	(7958)	GTTCGTCCTCTTCCTCTTCTGCTGCATTGCCACTACCGTTTGATCCTC										
SARS-CoV-2 NC_045512.2	(4184)	GGTGGCACTACTGAAATGCTAGCGAAAGCTTTGAGAAAAGTG-CCAACA										
												Section 86
	(8246)	8246	8260	8270	8280	8290	8300	8310	8320	8330	8342	
Ad 12 X73487	(8052)	CCAGATTTCAGCACGAGAGGGGCGGAAACGGGAAATCAGGGGTACAGCC										
SARS-CoV-2 NC_045512.2	(4280)	GTAGAGGAGGCCAAGACAGTGTCTTAAAGTGCCTTTACATCTACCA-TC										
												Section 87
	(8343)	8343	8350	8360	8370	8380	8390	8400	8410	8420	8439	
Ad 12 X73487	(8148)	GACAGCGCGCAAGTTGACTTCGCACAGGCGGGTAAAGAGCAGGCTGGAG										
SARS-CoV-2 NC_045512.2	(4376)	-----GTTTCGTTGAAATTGTCGAGAAATGCTTGCAATGCAGAGAGAA										
												Section 88
	(8440)	8440	8450	8460	8470	8480	8490	8500	8510	8520	8536	
Ad 12 X73487	(8240)	CTAT--TGCGTGAAGTATTCCATGAGCCCGGGGACTAACCCACGGT----										
SARS-CoV-2 NC_045512.2	(4464)	CAACTATAC-AGCGTAAATATAAGGTATTAAAAATACAGAGGGTGTGGT										
												Section 89
	(8537)	8537	8550	8560	8570	8580	8590	8600	8610	8620	8633	
Ad 12 X73487	(8323)	GCGCGGACGAGCTCCGGAGGAAAGCGGGGTTCGGTCC-TGCGGAGCGGG										
SARS-CoV-2 NC_045512.2	(4558)	AGCGTCACTTATCAACACACTTAAAGATCTAAATGAAAGTC-TTGTTACA										
												Section 90
	(8634)	8634	8640	8650	8660	8670	8680	8690	8700	8710	8720	8730
Ad 12 X73487	(8417)	TGAGCCCGAAGTTGACTGGCATGG-GCGACTACCGGCGGATT--GATAT										
SARS-CoV-2 NC_045512.2	(4653)	CTC-GGTATATGAGATCTCTCAAGTGCAGCTACAGTTTCTGTTTCTTCA										
												Section 91
	(8731)	8731	8740	8750	8760	8770	8780	8790	8800	8810	8827	
Ad 12 X73487	(8510)	GAA-CCTGA-AAGAAAGTTCAACA GAATCTCA GTGTCATTTACTG										
SARS-CoV-2 NC_045512.2	(4748)	AAAACACCTGAAGAACA TTTATTGAAACCATCTCA C-----TTG										

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		Section 92											
		(8828)	8828	8840	8850	8860	8870	8880	8890	8900	8910	8924	
Ad 12 X73487	(8602)	AGGC AATTTCTGCCATTAAATGATCAAATTTCTTTCCCTCTGG-AGGTCCTCATGTCCCGC--ACGTTCAAT-AGTGGCTGCAAGGTCATTAGATATC											
SARS-CoV-2 NC_045512.2	(4838)	ATAG AATTTCTTAAGAGAGGGTGATAAAGTGTATATTTACACTAG---TAATCCTACCACATTCCACCTAGATGGTGAAGTTATCACTTTGACATC											
		Section 93											
		(8925)	8925	8930	8940	8950	8960	8970	8980	8990	9000	9010	9021
Ad 12 X73487	(8694)	C---GACTCATTA-AGCTGTGAAAATGC---GTTTAGTCCAATTTCGTTCAGACTTCGGCTGTATACT-ACCCCTCCTTCGCTGTCCCCGAGCGCGCA											
SARS-CoV-2 NC_045512.2	(4932)	TTAA GACACTTCTTTCTTGAAGAAGTGAGGAC TATTA-AGGTGTTTACAACAGTAGACAACATTAACCTCCAC-ACGCAAGTTGTG GACATGTCA											
		Section 94											
		(9022)	9022	9030	9040	9050	9060	9070	9080	9090	9100	9118	
Ad 12 X73487	(8782)	TAACCACTTGCGCCAAGTTGAGTTCG-ACGAGCCGTGC-GAACACGCCGTAGTTGCGCAAGC-GCTGA AACAGGTAGTTTAAGGTGGT-GGC AACGT											
SARS-CoV-2 NC_045512.2	(5027)	ATGACATATGGA CAACAGTTTGGTCCAACTTATTTGGATGGAGCTGATGT TACTAAAATAAAACCTCA-----TAATTTACA-TGAAGGTAAACA											
		Section 95											
		(9119)	9119	9130	9140	9150	9160	9170	9180	9190	9200	9215	
Ad 12 X73487	(8875)	GT-TCTGAGACGAAGAA-ATACAGAA TCACGACGAAGCGT CAGCTCGT TGTGT CACCTAAGGCTTC-AAAGACGT-TCCATGGCTTCGT A-----											
SARS-CoV-2 NC_045512.2	(5117)	TTTATGTTTTTACCTAA TGATGACACTCTACGT--GTTGAGGCTTTTGTAGTACTTAC CACACAACTGATCTCAGTTTTCTGGGTAGGTACATGTGCAGC											
		Section 96											
		(9216)	9216	9230	9240	9250	9260	9270	9280	9290	9300	9312	
Ad 12 X73487	(8963)	---AAA GTCTACTGCAAAATTGAAAAC TGGGA GTT GCGAGCTGCCACCGTCAATTCTTTCTTCCAA CAGACGAATAAGCTCGGCCACCGTCTCGCGC											
SARS-CoV-2 NC_045512.2	(5212)	ATTAAATCACACTAA AAA GTGAAATACCCACAAGTTAATGGTTTAACTT---CTATTAAATGGGCAGA----TAACAACTGTTATCTTGC CACTG											
		Section 97											
		(9313)	9313	9320	9330	9340	9350	9360	9370	9380	9390	9409	
Ad 12 X73487	(9057)	ACTTTC TTGCTGAAATGCGC CGGGA ACTATTTCTTG TTC TCC TCTCTA-----CTCCATTATTTCTTCTCGACCAAGGTGGTGGGGTTGT--											
SARS-CoV-2 NC_045512.2	(5301)	CATTTGTT-----AACACTCCAAACAATAGAGTTGAAGT--TTAATCCACCTGCTCTACAAGATG-CTTATTACAGAGCAAGGGCTGGTGAAGCTGC											
		Section 98											
		(9410)	9410	9420	9430	9440	9450	9460	9470	9480	9490	9506	
Ad 12 X73487	(9147)	CTTCTTCGACGCCGCGAA CGGGCAGC-CTGTCTACA---AATCTTTC AATCATTT CGCCGCGACGCGGCGCATAGTTTCGGTTACTTGCTCGACCG											
SARS-CoV-2 NC_045512.2	(5389)	TAACTTTTGTGC ACTTAT-CTTAGCCTACTGTAAATAAGACAGTAGGTGAGTTAGGTGAT-GTTAGAGAAA CAATGAGTTACTTGTT-TTCAACATGCC											

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		Section 99																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9507)	9507	9520	9530	9540	9550	9560	9570	9580	9590	9603																				
		(9240)	TTTTCACGTGGTTCGTAAC	CTCAAA	ACTCCA	CCTCTAA	GTTCTGT	TCATGT	AAAATG	GGAATG	AGGC	CTTGCG	AGGGGCGTTA																			
		(5483)	AAATTTAGATTCTTGCAA	-----	AAGAGT	C--TG	ACGTGT	GTGT	TAA	CTTGT	GGA	CAC	AGCAG	GA--C	AACCCTTAAG	GGT	GTA	GAG	CTG													
		Section 100																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9604)	9604	9610	9620	9630	9640	9650	9660	9670	9680	9690	9700																			
		(9337)	CGCTGATTTATG	CATTT	TATTATTT	GCTGCGT	AGGA	ACTCCGC	GC	AAGG	AG	CTA	AGCGTC	TG	CATAT	TCCACCGGGT	TCG	GAG	A	-----	AC	CTT	T									
		(5568)	TT---A	TGTACAT	GGGC	ACAC	TTTCT	TATGA	CA	CA--T	T	TAAAGAA	AGGT	GTT	CAG	A	TACCT	TG	TACG	TGT	GGTAA	ACAAG	GCT	A	CAAAAT	A	CT	AGT				
		Section 101																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9701)	9701	9710	9720	9730	9740	9750	9760	9770	9780	9797																				
		(9424)	CAAGAAGGCATCTAGC	--CAGT	CACAGTCA	CAAGG	TAGGCT	AA	GT	TTTGT	TTCTTCTA	AGTAC	CAGGA	AGC	TG	AGCA	A	TG	CTACT	AAT	AA	T	G									
		(5659)	ACAACAGGAGTCA	CCTTTTGTTA	TGATG	TCAG	CA	CCACCT	GCTC	AGT	ATGA	AC	TTAAG	--CAT	G	GTA	CATTT	ACT	TGT	GCT	AG	TGAGT	TAC	ACT	GGT	T						
		Section 102																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9798)	9798	9810	9820	9830	9840	9850	9860	9870	9880	9894																				
		(9516)	TAAATTGAAG	TAA	GCTGTTT	TAA	AGCC	CACGA	ATGGT	TTT	TAA	AG--	AAGCACC	A	CAT	CTT	G	GGTCC	GGC	TTGT	TGA	ATT	C	G	CAGG	CG	GCTC	TGC	CA	TT	C	
		(5753)	-AAATTACCAG	TGTG	TCAC	T-ATAAA	CATAT	AACT	CTTA	AAGAA	ACTTT	TGT	ATTG	CAT	AG	ACGGT	GCT	TT	TACT	TTA	CAAA	G	T	CCT	CAG	AA	TAC	AA	AGG			
		Section 103																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9895)	9895	9900	9910	9920	9930	9940	9950	9960	9970	9980	9991																			
		(9610)	CACACGTCAC	TTTGACAT	CTGTC	CAAGA	TCTTT	GTAGT	AGTCT	TG	CAT	T-AA	ACC	TTT	CC	ACT	TCT	ACCT	C	--GC	GG	----	TTT	---	CC	G	CA	T	C			
		(5848)	TCCATATT	--ACGGA	TGTTTT	TC	TACA	AAGA	AAACA	GT	TAC	CA	ACA	CAAC	CAT	AA	AA	CC	AGT	-T	ACT	TATA	AA	T	GGAT	G	TGTTG	TTT	GTA	CAG	AA	AT
		Section 104																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(9992)	9992	10000	10010	10020	10030	10040	10050	10060	10070	10088																				
		(9695)	AGCCAT	TGTGCGT	GCTTCCG	TAGCC	TTGCAG	CGGTTG	TATAA	AGCT	AAAT	CTG	GC	A-CT	ACC	CG	TTCCG	CAAG	CAC	TGCCT	GTTGA	ATT	TGGGT	AA								
		(5942)	GACCC	TA----	AGTTGGA	--C	AA	TTATTATA	AAGAA	AG	CA	ATTCT	ATT	TCAG	AG	CA	ACC	AA	TTGAT	CTTGT	AC	CAA	ACCA	ACC	AT	AT	CC	-AA	AA			
		Section 105																														
SARS-CoV-2 NC_045512.2	Ad 12 X73487	(10089)	10089	10100	10110	10120	10130	10140	10150	10160	10170	10185																				
		(9790)	GGGTG	GTTGCA	AAGTCAT	CCACAT	CTACAA	AGCGGT	GATAA	-GCTCC	TGCAT	TAA	TGGTG	--TAG	CTG	CAGT	TTGT	CAT	TACT	GACC	AA	TTAA	CA									
		(6031)	CGCAAG	GCTTCGA	--TAAT	TTTTA	AGTTT	TGTAT	GTGA	TATA	TCAA	ATT	TGCTGAT	TGAT	T	TAA	ACC	AGT	TAA	C--TG	GT	AT	A	GA	----	AA	C	TG	CT	G		

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[illegible]

SARS-CoV-2 & Ad12.apr

												Section 113								
	(10865)	10865	10870	10880	10890	10900	10910	10920	10930	10940	10950	10961								
Ad 12 X73487	(10452)	CGACC	TCAGC	-----	-----	CAGGGC	AACC	-----	AGGCC	TCAGCAG	CGGTG	---GCGCTTT	---CGGGCTCTGG	CGAACAGGAA						
SARS-CoV-2 NC_045512.2	(6730)	-CATAG	TTACA	GGTGT	TAAACCGT	GTTTGTACTA	ATTATATGC	-CTTAT	TTCTTTA	CTTTATTGCTA	CAAT	TGTGTACT	TT-TA	CTAGAAGTACA						
												Section 114								
	(10962)	10962	10970	10980	10990	11000	11010	11020	11030	11040	11058									
Ad 12 X73487	(10518)	GAGCCT	CAATG	TCCT-ACAT	T---G	GAGTTGG	AAG--	AAGGAG	AAGGCA	TAGCCCGA	TTGG	GCGCCC	ACTCTCCTG	AGCGTCA	ACC	CAAGGGT	TGCAG			
SARS-CoV-2 NC_045512.2	(6824)	AATTCT	AGAA	TAAAGCATC	TATGCC	GACTACT	ATAGC	AAAAGA	ATACTGT	TAGAGTGT	TCGG	TA---A	ATTTTGTCT	AG----	AGGCTTCAT	TTAAT				
												Section 115								
	(11059)	11059	11070	11080	11090	11100	11110	11120	11130	11140	11155									
Ad 12 X73487	(10608)	CTCGCCCG	GGACAG	TCGCG	TGGC	ATTTG	TGCCTCG	TAGAAC	ATGTT	-TCGCG	ACAA	CAGC	GGGGAG	GA--	AGCTG	AGGA	AAT--G	CGAG	ACTGCAG	
SARS-CoV-2 NC_045512.2	(6914)	TATTTGAA	GTCACC	TAATT	TTTCT	TAAAC	TGATAAA	TATTA	TAATTT	TGGTTTT	TTTACT	ATTAAG	TGTTT	GCCT	AGGT	TCTTT	AATCTA	CTCA	ACCGCTG	
												Section 116								
	(11156)	11156	11170	11180	11190	11200	11210	11220	11230	11240	11252									
Ad 12 X73487	(10700)	GTTTA	---GGGCCGG	TCGCG	-AGCT	TGCG	CGCGGATT	TAA	TCGG	GAGCG	ACTG	CTGCGT	GAGG	AGGACT	TTGAGC	CAG-AT	GAA	CATTCG	--GGGAT	
SARS-CoV-2 NC_045512.2	(7011)	CTTTAGGT	GTTTTAA	TGTCTA	ATTAG	GCATGC	---CTTCT	TACTGT	--ACTG	GT	TACA	GAGAGG	CTATTT	TGAACT	CTCT	ACTAA	TGTC	CACTATT	GCA	
												Section 117								
	(11253)	11253	11260	11270	11280	11290	11300	11310	11320	11330	11349									
Ad 12 X73487	(10790)	TAGTT	CTGC	ACGGG	C-----	CCAT	TGTA	TC---A	G	CAGC	--CAAC	TTAG	TAA	CAGC	ATATGAAC	AAAC	GGTT	TACAG	AGGAACGTAACT	TT-CAAAA-
SARS-CoV-2 NC_045512.2	(7103)	ACC	TACTGT	ACTGG	TTCTATA	CC	TGTA	GTGTTT	G	TCTTAGTGGT	TTAG	ATT	CTTT	AGACACCT	ATC	CTTCTTT	AGAACTATAC	AAAT	TTACATTT	
												Section 118								
	(11350)	11350	11360	11370	11380	11390	11400	11410	11420	11430	11446									
Ad 12 X73487	(10874)	AAGCTTT	TAAT	AACCATG	TGCGCACAC	CTAAT	AGC	GCGAGAAG	A-AGT	AGCCA	TTGG	TTTA	-ATG	CATCTTT	TGGGAC	TTTGTAG	AAGCTTA	TGTACATA		
SARS-CoV-2 NC_045512.2	(7200)	CATCTTT	T-AA	TGGGA	TTTAACTG	CTTT	TG	GC	TTAGTTGC	AGAGT	GGTTT	TTGG	CATA	ATTCTTT	TCACTAGG	TTTTT	TCTAT	G	TACTTGAATTGG	
												Section 119								
	(11447)	11447	11460	11470	11480	11490	11500	11510	11520	11530	11543									
Ad 12 X73487	(10969)	ATC	CAGCAAG	TAAAC	CCCTAACT	TGCC	CAGCT	GTTCT	TAAT	AGT	TTCAACA	TAG	TAG	AGAC	AAT	GAAACTT	TTAG--	GGATGCAAT	G-CTTAA	CATAGC
SARS-CoV-2 NC_045512.2	(7296)	CTG	CA---	ATCATG	CAAT	TGTT	TTT	CAGCT	ATTT	TGC--	AGTACA	TTT	TAT	TAGT--	AAT	TCTTGGC	TTATGT	GGTT--	AATAA	TTAATCTTG

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											Section 120																																	
	(11544)	11544	11550	11560	11570	11580	11590	11600	11610	11620	11630	11640																																
Ad 12 X73487	(11063)	TG-AA	CCCC	CAGG	GTCGGTGT	TTACTC	GATTT	AATTA	ACAT	TCTG	CAGAGCA	TTGTGGTTCA	-GGAACG	CAGTCT	TTAGTT	TGGCA	GAC	AAAG	GTGG	CCG																								
SARS-CoV-2 NC_045512.2	(7381)	ACA	AA	TGG	CCCC	GATTTCA	GCT-AT	GGTTAG	AATGT	ACAT	----	C-----	TTCT-T	TGCAT	-----	C-AT	TTTAT	TATG	TAT	GGA	AAAG	GTAT	TGT																					
											Section 121																																	
	(11641)	11641	11650	11660	11670	11680	11690	11700	11710	11720	11737																																	
Ad 12 X73487	(11158)	C	CAT	TAAT	TACT	CCAT	TGT	TAA--	GT	TGGG	AAA	GT	TT	TATG	CTCG	TAA	AA	TCTAC	AA	AGT	CCGT	ATG	-T	TCCC	AT	TG	ACAA	GG	AA	----	G	TGAAG												
SARS-CoV-2 NC_045512.2	(7459)	G	CAT	GTTG	TAGA	CGG	TTG	TAA	TTCA	TCAA	-CTT	GT	AT	GATG	TGT-	TACAA	AG	GTAA	TAGAG	CAAC	AA	GAG	TC	GA	AT	GT	ACAA	CT	ATTG	TAA	TGGT	G												
											Section 122																																	
	(11738)	11738	11750	11760	11770	11780	11790	11800	11810	11820	11834																																	
Ad 12 X73487	(11247)	A	TAGA	--CAG	CTTTTA	----	TATGC	GC	ATGG	CTT	TAA	----	AGG	TAC	TAA	CAT	TAAG	CG	AC	GATCT	TG	GA	GT	GT	ACC	GCA	ATG	-	ACCGAAT	C	CACAA													
SARS-CoV-2 NC_045512.2	(7554)	T	TAGA	AGGTC	CTTTTA	TGTC	TATGC	TA	ATGG	AGG	TAA	AGGC	TTT	TG	CA	AA	C--	TACA	CA	ATTG	GAA	TT	GT	GT	TAA	ATT	GT	GAT	AC	ATTCT	GT	CTGGT												
											Section 123																																	
	(11835)	11835	11840	11850	11860	11870	11880	11890	11900	11910	11920	11931																																
Ad 12 X73487	(11333)	AG	C	AGTAAGCGCCAGTCGCCGCA	-GAG	GAG	CTA	AGC	GACA	AAGAG	CTTA	TGCA	TAG	CTT	ACAAA	GGGCG	CTG	AC	GG	GAG	CAG	-GA	-ACAGAGGACGAG																					
SARS-CoV-2 NC_045512.2	(7649)	AG	T	A	CATTTATTAGTGATGAAGTT	GC	GAG	AGA	CTT	GT	CA	CTA	--	CAGT	T---	TA	AAAG	AC	CAA	TAAAT	C	T	ACT	GA	-C	CAG	TCTTCT	----	TACA															
											Section 124																																	
	(11932)	11932	11940	11950	11960	11970	11980	11990	12000	12010	12028																																	
Ad 12 X73487	(11427)	TCGTT	CT	TGAT	TATGGG	C	GCA	GACCT	A	GGT	GGCAGC	C	AG	G	GC	TC	GCGCT	TT	G	AGGC	AGCTGG	AGTGGC	GT	CT	GC	TGA	CG	-T	CAC	T	GG	CGAT	GAC											
SARS-CoV-2 NC_045512.2	(7734)	TCGTT	GAT	-AG	T-GTTA	C	AGT	GA	AGA	AT	GGT	----	T	CAT	C	CA	TC	TTTAC	TT	T	GA	TAA	AGCTGG	TCAAAA	G	ACT	TA	TGA	AAGA	CAT	T	CT	C	TCTC										
											Section 125																																	
	(12029)	12029	12040	12050	12060	12070	12080	12090	12100	12110	12125																																	
Ad 12 X73487	(11523)	GAT	T	GACGA	AG	AC	CAG	TAC	GAGGA	CTGA	TC	G	CCGT	T--	AC	CT	TTT	GT	TAG	AT	GCA	GC	GACCGGCGA	T	CAT	C--	GCGGAGAG	GG	GCTCCT	A	A	CT	----											
SARS-CoV-2 NC_045512.2	(7824)	AT	T	TTGTTA	A-	AC	--T	TA	GACAAC	CTGA	GAG	CTAA	T	AACA	CT	AAA	GT	TC	AT	--T	GC	CTATTAATG	T	TAT	AGTTTTT	GAT	GGTA	---	AAT	C	AAAATGT													
											Section 126																																	
	(12126)	12126	12140	12150	12160	12170	12180	12190	12200	12210	12222																																	
Ad 12 X73487	(11611)	-----	G	A	TCCC	GC	G	GT	TT	TG	GCGG	C	CA	T	G	CA	AAGC	CAGC	CT	C	TG	GCGTT	AC	AGC	T	T	CAG	T	GACT	G	GA	CAGC	GGC	CAT	T	G	GATC	GT	AT					
SARS-CoV-2 NC_045512.2	(7913)	GA	A	AATCATCT	G	C	AAAATCA	G	C	G	T	C	T	G	T	TAC	AGT	--	T	CA	G	T--	CAGC	-TT	AT	TG	TG	CA	AC	CT	A	T	ACT	G	A	TCA	-GGC	AT	T	AGT	--	GT	CT	G

SARS-CoV-2 & Ad12.apr

												Section 127																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	(12223)	12223	12230	12240	12250	12260	12270	12280	12290	12300	12319																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Ad 12 X73487	(11696)	ATG	GCTT	TAA	CGG	C	GC	-G	CAGT	CCT	GAT	GCT	-TTTC	CCAG	CAG	C	CCCAAGCT	AAC	CGC	TTT	TCGGC	CAT	TT	-TGGAAGC	AGT	AGTGC	CGTC	TC	GTA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
SARS-CoV-2 NC_045512.2	(8001)	ATG	TTGG	TG	ATA	GT	GC	G	AAGT	T--	G	CAGT	TAA	AAT	G	TTT	GAT	G	CTT	ACGTTA	A	TAC	GT	T	----	CAT	CAA	--	CTTTT	A--	ACGTA	CCAA	TG	GAA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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	(12320)	12320	12330	12340	12350	12360	12370	12380	12390	12400	12416																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Ad 12 X73487	(11790)	CT	AAC	CCT	AC	-T	CAC	G----	AGAAAGT	GTTAACC	ATT	GTA	AA	TG	CT	T	TGT	T	GGA	TAG	CA	AA	GCCA	TCCG	CAA	AGAT	TGAGGC	T	GGTTTAA	TATA	CAA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
SARS-CoV-2 NC_045512.2	(8087)	AA	ACT	CAA	AA	ACA	CTAG	TTG	CA	ACTGCAGA	AAGCTGA	ACT	TGC	AA	AG	AAT	TGT	G	T	CCT	TAG	AC	AA	TGTC	TTAT	CT	-ACT	TTTATT	T	CAGCAGC	T	CGG	CAA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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	(12417)	12417	12430	12440	12450	12460	12470	12480	12490	12500	12513																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Ad 12 X73487	(11881)	C	G	TTT	TG	C	TTGAG	C	GCG----	T	G	C	AC	GCT	A	T	A	CAGTACC	AAT	GT	GC	-AGGCT	TAA	C	TTAG	-ACCGGAT	TGGGTAC	AGAT	TGTAA	A	G	GAGGC	G	CTG	GCT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
SARS-CoV-2 NC_045512.2	(8183)	G	G	TTT	TG	T	TGATT	CAGAT	GTA	-GAA	AC	TAA	A	G	A	T	G	T	T	G	T	T	AAT	TGT	C	AC	ATC	AATCTG	ACATAGA	AG	-TTACTG	G	C	GATAG	G	TG	TAA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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	(12514)	12514	12520	12530	12540	12550	12560	12570	12580	12590	12600	12610																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Ad 12 X73487	(11977)	C	AAC	G	AGAG	-CG	CTTT	C	ATCG	C	G--	A	T	G	T	AA	T	CT	TG	G	T	T	CG	TAG	TAG	CAT	TAAAC	GCT	----	T	TTT	TG	-AGT	ACT	CAG	C	CGGC	TAATG	TT	CCG	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
SARS-CoV-2 NC_045512.2	(8278)	T	AAC	T	ATATG	CT	CACCT	ATA	ACAAAG	TT	G	AAA	CA	TG	ACAC	-C	CG	GT	GAC	-CT	TGGT	GCT	TGTAT	TGAC	TG	TAGT	G	CG	CGT	CATAT	TAATG	TCG	CAG	G																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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	(12611)	12611	12620	12630	12640	12650	12660	12670	12680	12690	12707																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Ad 12 X73487	(12060)	G	T	G	T	C	AGGAAG	A	T	T	A	T	A	C	A	A	A	C	T	T	C	A	G	C	G	C	T	T	G	C	G	C	T	T	A	C	T	G	A	C	C	C	G	A	T	T	A	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
SARS-CoV-2 NC_045512.2	(8373)	T	A	G	C	A	AA	AAGTC	A	C	A	A	C	A	T	T	G	C	T	T	G	A	T	G	A	A	G	A	T	T	C	A	T	T	G	T	C	T	G	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

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											Section 134													
	(12902)	12902	12910	12920	12930	12940	12950	12960	12970	12980	12998													
Ad 12 X73487	(12333)	-GTTTAA	GTCGAGATT	CATACCTGGGTC	ACTTAGT	TACTTTGTACC	GC-GAAGCCAT	TGGTCAAG	CGCAGGTAGAC	GAA-CAA-ACT	TATC-AAGAA													
SARS-CoV-2 NC_045512.2	(8652)	TGTCATA	ACATACTGA	CTTTCAAGTGA	AATCA--	TAGGATACAAAG	GCTATTGATGG	TGGTGTCA	CTCGTGACATAG	CATCTACAGA	TACTTGTTTT													
											Section 135													
	(12999)	12999	13010	13020	13030	13040	13050	13060	13070	13080	13095													
Ad 12 X73487	(12425)	ATAAC	CAGTGT	TAGTCGCGCA	--CTGGGC	CAGGAGGACAC	TGSCAGTTTA	GAGGCCAC	ACTTAAC	TTTTACTTA	ACTAACCGTCG	CCAGCAAGGTGCC												
SARS-CoV-2 NC_045512.2	(8747)	GCTAACA	-----	ACATGCTGA	ATTTTGACA	CATG	GTTTAGCAG	-----	CGTGGTGGT	AGTTA--	TACTAA-TGACA	AAAGCTG	CCATT--GA--T											
											Section 136													
	(13096)	13096	13110	13120	13130	13140	13150	13160	13170	13180	13192													
Ad 12 X73487	(12520)	TCCT	CAGTAC	CTTTAAAT	GCGGAAGAAG	-AACGCAT	TATGCGCTAT	GTACAGCAAT	CTGTAG	TTTGTAT	CTTATGCGTGAG	GGTGCACACCC	CAG											
SARS-CoV-2 NC_045512.2	(8827)	TGCT--	GAGTCAT	AACAAG	---A-GAAG	TGGGTTT	TGTCGTG	CTGTTGC	TGGC	ACGATAT	TTACGCACA	-ACTAATG--	GTGAC	TTTTTTG	CAT									
											Section 137													
	(13193)	13193	13200	13210	13220	13230	13240	13250	13260	13270	13289													
Ad 12 X73487	(12616)	TGCGC	CTAGACA	TGACAGCGC	GCAATAT	GGA---G	CGTCCTT	CTAGG-CTT	CCAA	TGAGCTTT	CATTAA	TCGTTGATGG	ATTAC	CTT	CACC									
SARS-CoV-2 NC_045512.2	(8915)	TTCTTA	CCTAGAG	TTTTAG--	TGCA	GTGTG	TAACAT	CTGT	TACAGAC	CCATCAAA	ACTTAT	AGAGTAC	ACTG	ACT--TTG	CAAC	ATCAGCTT	----G							
											Section 138													
	(13290)	13290	13300	13310	13320	13330	13340	13350	13360	13370	13386													
Ad 12 X73487	(12709)	CGCTGC	GGC	CA	TGAACGGG	GAATAC	TT--TACAA	ATGC	AATTTCTAA	ATCCG	CATTGGT	TGCC	CCCTCC	TGGAT	TTTTAC	ACTGG	TGAATTT	GATTTGC						
SARS-CoV-2 NC_045512.2	(9004)	TGTTTT	GGC--	TGCTGA	ATGTAC	AATTTT	TAAAG	ATGCTTC	TGGTAAG	C--AG--	TACC	ATATGT	-TATG--	ATAC	CAATGT	ACTAG	AGGTT							
											Section 139													
	(13387)	13387	13400	13410	13420	13430	13440	13450	13460	13470	13483													
Ad 12 X73487	(12804)	CGGAA	GGAATGA	TGGCTTT	TTTGTGG	-GATGAT	GTTAC	GGA	CAGTCTG	TTTAG	TCGAG	TTATT	GGA	CA	CCATG	GGTAA	-AAAGG	AA---GC	AGGT					
SARS-CoV-2 NC_045512.2	(9090)	CTGTT	GCTTATGA	AAAGTTT	ACGCC	CTGACAC	ACGTTAT	GTG	CTCA---	TGGATGG	CTCTA	TTATT	---	CAATT	TCC	TAA	-ACCT	ACCTT	GAAGGT					
											Section 140													
	(13484)	13484	13490	13500	13510	13520	13530	13540	13550	13560	13570	13580												
Ad 12 X73487	(12896)	G--AT	GAAG	GT	C--CCTT	G	ACTCTC	TCGGGC	GAGT	TTCT----	CA	TTC	CC	AGT	TTAA	CTAG	TTTACC	CGCCAG	GTGTTAA	AG	C	GGT	CGT	TACCAC
SARS-CoV-2 NC_045512.2	(9179)	TCTGT	TTAGA	GTGG	TAA	CAAA	CTTTGAT	TCT---	GAGT	ACTGTAGG	CA	CGG	CA	CTTG	TGAA	AGATC	AGAAG	CTGGT	GT	TTGTGT	AT	CTACTA	--	GTGG

SARS-CoV-2 & Ad12.apr

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SARS-CoV-2 & Ad12.apr

Genomic alignment of SARS-CoV-2 NC_045512.2 with Ad 12 X73487 across five sections (148-154). The alignment shows high sequence identity with some mismatches highlighted in red. Section 148 (14260-14356) shows a deletion in the SARS-CoV-2 sequence. Section 149 (14357-14453) shows a deletion in the SARS-CoV-2 sequence. Section 150 (14454-14550) shows a deletion in the SARS-CoV-2 sequence. Section 151 (14551-14647) shows a deletion in the SARS-CoV-2 sequence. Section 152 (14648-14744) shows a deletion in the SARS-CoV-2 sequence. Section 153 (14745-14841) shows a deletion in the SARS-CoV-2 sequence. Section 154 (14842-14938) shows a deletion in the SARS-CoV-2 sequence.

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											Section 155
(14939)	14939	14950	14960	14970	14980	14990	15000	15010	15020	15035	
Ad 12 X73487 (14271)	-----GAGGA-----	GA	GA	GA	GA	GA	GA	GA	GA	GA	
SARS-CoV-2 NC_045512.2 (10495)	TGTTGGTTTAAACATA	GA	TA	TG	ACT	GT	CT	CT	TT	AA	AT
											Section 156
(15036)	15036	15050	15060	15070	15080	15090	15100	15110	15120	15132	
Ad 12 X73487 (14304)	-----CTAGGA	TT	GA	AC	CG	GT	TT	GA	AA	CA	
SARS-CoV-2 NC_045512.2 (10592)	AACTTTTATGGACCTTTTGT	TG	AC	AG	GC	AA	CA	GC	AC	AA	CA
											Section 157
(15133)	15133	15140	15150	15160	15170	15180	15190	15200	15210	15229	
Ad 12 X73487 (14365)	AAAAAA	TACT	AA	AT	AT	CG	CAG	CT	GG	TA	TT
SARS-CoV-2 NC_045512.2 (10689)	TT	AT	AA	AT	GG	AG	AC	AG	GT	GG	TT
											Section 158
(15230)	15230	15240	15250	15260	15270	15280	15290	15300	15310	15326	
Ad 12 X73487 (14460)	TAA	AC	AG	G	CGG	CT	CC	GA	ACA	G	GT
SARS-CoV-2 NC_045512.2 (10781)	AC	ACA	AG	A	-----	CC	AT	GT	T	G	AC
											Section 159
(15327)	15327	15340	15350	15360	15370	15380	15390	15400	15410	15423	
Ad 12 X73487 (14555)	G	T	AG	TG	CAG	CAG	A	ATT	AC	TG	---
SARS-CoV-2 NC_045512.2 (10870)	G	CA	AAA	TG	GT	AT	GA	AT	GG	AC	GT
											Section 160
(15424)	15424	15430	15440	15450	15460	15470	15480	15490	15500	15510	15520
Ad 12 X73487 (14647)	TACG	---	CG	CGT	GT	TT	AA	T	CG	TT	TCC
SARS-CoV-2 NC_045512.2 (10964)	ACT	TT	CA	AAA	GT	GC	AG	T	G	AAA	AG
											Section 161
(15521)	15521	15530	15540	15550	15560	15570	15580	15590	15600	15617	
Ad 12 X73487 (14734)	C	---	GC	CTT	AC	AG	A	T	C	AC	GG
SARS-CoV-2 NC_045512.2 (11061)	AAT	GGT	CTT	TG	TT	CT	T	T	T	T	T

SARS-CoV-2 & Ad12.apr

										Section 162
(15618)	15618	15630	15640	15650	15660	15670	15680	15690	15700	15714
Ad 12 X73487 (14818)	GAC-----CTGTCCTACGTTTACAAAGCACTGGGCATAGTTCTCCACGAGTGCTTTCTAGTGCACATTTTAAAAAAGTGTGGTAACATGTC									
SARS-CoV-2 NC_045512.2 (11158)	TAGCATGCATTCTCTGTTTGTGTTACTCTCTGCCACTGTAGCTTATTTTAAATATGTGCTA--TATGCCTGCTAGTGTGGTGTATGCGTA									
										Section 163
(15715)	15715	15720	15730	15740	15750	15760	15770	15780	15790	15811
Ad 12 X73487 (14907)	CA---TTTGGTTTCGCCAAGTAAACAACACGGGCTGGGACTGGGTGCCGCCCGCA-----TGTATGGAGGAGCTAAACAAGGTCTAGC									
SARS-CoV-2 NC_045512.2 (11253)	TTATGACA TGGTTGGATATGTGTGATAC--T--AGTTTGTCTGGTTTAAAGCTAAAGAACTGTGTGTTATGTATGCAATCAGCTGTAAAA--GTGTTAC									
										Section 164
(15812)	15812	15820	15830	15840	15850	15860	15870	15880	15890	15908
Ad 12 X73487 (14989)	CAA-CATCCAGTGCAGGTACGGACATTAACGAGCTCCATGGGG-CG-CGCATACCCGA-GGACGCAC TGG--TCGCACCACCTGTAGACGATGTTA									
SARS-CoV-2 NC_045512.2 (11340)	TAAATCTTATGACA GCAAGAACTGTGTATGATGATGGTGCTAGGAGAGTGTGGACACTTAT--G--AATGTCTTGACACTCGTTATAAA-AGT TTA									
										Section 165
(15909)	15909	15920	15930	15940	15950	15960	15970	15980	15990	16005
Ad 12 X73487 (15080)	TTGA-CTCGGTAGTGGCCGATGCTCGCAAGTACCGCGCGCCGGCTGAACAGCAGGGTCTACTGTGTATGCAGTAATTGATGAG-----GTAGTGG									
SARS-CoV-2 NC_045512.2 (11431)	TTATGGT-AAATGCTTTAG--ATCAAGGCATTTCCATGTGGGCTCTATAA--TCTCTGTACTTCTAACTACTCAAGGTGTAGTTACAACGTCACTGT									
										Section 166
(16006)	16006	16020	16030	16040	16050	16060	16070	16080	16090	16102
Ad 12 X73487 (15170)	CAAACGCGCGGGCTTATGCA-----GCGCCGAGACGCGCTG---CGTCGC---GGCGTAGACCAACAC--CGCCATGCGCGCGGCCAGAG--C									
SARS-CoV-2 NC_045512.2 (11523)	TTTTGGCAGAGGTATGTTTTTATGTGTGTTGAGTATTGCCCTATTTTCTTCTATAACTGGTAATACACCTTCAGTGTATAATGCTAGTTTATTGTTT									
										Section 167
(16103)	16103	16110	16120	16130	16140	16150	16160	16170	16180	16199
Ad 12 X73487 (15252)	GTTGGTTTCGACGGGCCAGGCG---CATTTGGGCGGG--CGAGCTA--TGATGCGGGCAGCC-----AGG-CGGGCTG-C---AACGCC---TGCC-									
SARS-CoV-2 NC_045512.2 (11620)	CTTAGGCTATTTTTTGTACTTGTACTTTGGCTCTTTTGTGTTACTCAACCG--CTACTTTAGACTGACTCTTGGTGTTTATGATTACCTTAGTTTCTA									
										Section 168
(16200)	16200	16210	16220	16230	16240	16250	16260	16270	16280	16296
Ad 12 X73487 (15325)	----GGTCGAGC-----GCGGAGAC-GGGCGGCAGCTGCGGC CGCAACAGCTA--TTG-----CAAACCTAGCTGCTCCGCGACGAGGAAATGTAT									
SARS-CoV-2 NC_045512.2 (11715)	CACAGGAGTTTAGATATATGAATTCACA GGGACTACTCCACCCAAGAAATAGCATAGATGCCCTTCAAAC-TCAACATTAAATTGTTGGTGTGTTG									

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											Section 169		
	(16297)	16297	16310	16320	16330	16340	16350	16360	16370	16380	16393		
Ad 12 X73487 (15404)		A	CTGGGTGC	GCGA	CTCAGTGA	CCGG-GACGC	GTGT	-----	GC	CAGTT	CGTACGCGTCCACCTC-ACCCTTAGA-----AGACAAAG--AGT--GACT		
SARS-CoV-2 NC_045512.2 (11811)		G	CAAACCTTT	GTAT	CAAAGTAG	CCACT	GTACA	GTCT	AAAAATGT	CAGAT	GTAAAGTGCACATCAGTAGTCTTA	CTCTCAGTTTTGCAACAACCTCAGAGT	
											Section 170		
	(16394)	16394	16400	16410	16420	16430	16440	16450	16460	16470	16480	16490	
Ad 12 X73487 (15485)		CA	ATGTC	TGT	TATGTAT	-----	GC	CCAGC	-----	ATGAC	CAAACGCA	AGTTCAAAGAAAGAGCTGCTGCAGGCCTTAGCGCCTGAAAT	
SARS-CoV-2 NC_045512.2 (11908)		AG	AATCA	TCA	TCTAAAT	TGTGGGCTCAATGT	GT	CCAG	TTACACA	ATGAC	ATTCTCTT	AGCT---AAAGATACTACTGAAG-CCTTTGAAAAATGGT	
											Section 171		
	(16491)	16491	16500	16510	16520	16530	16540	16550	16560	16570	16587		
Ad 12 X73487 (15562)		A	TATGGC	CCA	TCGGATAAC	CTTACCA	AGCGC	GAT	ATCAAGCA	TGTTAA	AAAACGGG--	AAAAAAAGAAGGAAGAAGT	
SARS-CoV-2 NC_045512.2 (12001)		T	CACTA	CTT	TCTGTTT	TG	CTTCCA	TGAGGT	GCTGTAG	ACATA	AAACAAAGCTTTGTG	AAAGAAATGCTGGA-----CAACAGGGCAACCTTACAA	
											Section 172		
	(16588)	16588	16600	16610	16620	16630	16640	16650	16660	16670	16684		
Ad 12 X73487 (15656)		G	GCGTC	AGTT	TGTGCGT	CA	TTTG	CG--	CC	CAGACGT	AGGGTACAGTGGAGAGGACGGCAAGTAA--ACGCATTTTTCGACCCGGGCACCAACAG		
SARS-CoV-2 NC_045512.2 (12092)		G	CTAT	--	AGCC	TCAGAGTT	TAGTT	CCCTT	CC	ATCAT	ATATGCAG	CTTTTGCTACTGCTCAAGAAAGCTTATGAGCAGGCTGTTGCTAAT--GGTG-ATTC	
											Section 173		
	(16685)	16685	16690	16700	16710	16720	16730	16740	16750	16760	16781		
Ad 12 X73487 (15747)		T	GTTT	TTT	TCTCCCGG	AGAGC	GAA	CGA	TTATG	CGT	CCCCTAA	AGCGCAGTACGACGAAGTGTACGCAGACGATGACATTTTGGAAGCAAGCGGCA	
SARS-CoV-2 NC_045512.2 (12184)		T	GAAG	TTGT	TCTTAAA	AGTT	GAA	GAA	G---	TCTT	---TG--	AATGTGGCTA-----AATCTGAATTGACCGT---GATGCAAGCATGCA	
											Section 174		
	(16782)	16782	16790	16800	16810	16820	16830	16840	16850	16860	16878		
Ad 12 X73487 (15844)		A	CAGACT	-G	GGGA	AATTT	G	CATATG	GA	A--	AAAAAGG	CGTTACGGAGACAAAATTGCTATTCTTTGGACGAGGAAATCAAAC--AC	
SARS-CoV-2 NC_045512.2 (12259)		A	CGTA	AAGTT	GGAA	--AA	GATGGCT	GATC	AA	GCTAT	GACCA	AAATGTATAAA	CAGGCTAGCTATTGAGGACAGAGG--GCAAAAGTTACTAGTGCTAT
											Section 175		
	(16879)	16879	16890	16900	16910	16920	16930	16940	16950	16960	16975		
Ad 12 X73487 (15937)		G	GCTGTC	A--	CTTT	GCA	CAAG	TGTT	G	CCCGTCC	TTGG	GCCTTCGGAAGAAAAGCGTGGAATTAAAAGGGAAGCCATGGATGAAT	
SARS-CoV-2 NC_045512.2 (12352)		G	CAGACA	ATG	CTTT	TCA	CTAT	GCT	TAG	---AAAG	TTGG	ATAATGATGCACTCAACAA--CATTATCAACAATGCAGAGATGGTTGTGTTCC	-TTG

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										Section 176			
(16976)	16976	16990	17000	17010	17020	17030	17040	17050	17060	17072			
Ad 12 X73487 (16032)	TGCA----	ACTGATGGTGC	CTAAGCGGC	AAAGTTAGAGGAC	GTACTAGAGC	ACATGAAGG	TGG--AT-	CTAGCGTACAG	CCAGATGTAAAAGTA				
SARS-CoV-2 NC_045512.2 (12443)	AAACA	TAA	TAC	CTCTTACAA	CAGCAGCCA	AACTAA	TGTTGTCA	TACAGACTATA	ACACATATA	AAAAATACGTGTGATGGTACAACATTACTTATG			
										Section 177			
(17073)	17073	17080	17090	17100	17110	17120	17130	17140	17150	17169			
Ad 12 X73487 (16121)	CGTCCGATAAAAAA	GGTAGCTCCA	AGG--ATTGGGAGT	TCAAACAGT	GGAC--ATTCAA	ATTCC	-----GTGCAA	AC	TGCATTGGGT	-----G			
SARS-CoV-2 NC_045512.2 (12540)	CATCAGCAT--TGT	GGGAAATCCA	ACAGGTTGTAGAT	TGCAGATAGT	AAATTGTTCAA	CTTAGT	GAAATTA	GTATGGAC	AATTCACCTAATTTAGC-				
										Section 178			
(17170)	17170	17180	17190	17200	17210	17220	17230	17240	17250	17266			
Ad 12 X73487 (16200)	AAACTATGGAAAT	TCCAAAC--TT	CGCCAATA	AAAAACAA	CGGTGA	----AC	GCAAGCGTG	CAAACAGAC	CCTTGGTAC	CCGCCAGTGCTTTC	AACA--		
SARS-CoV-2 NC_045512.2 (12634)	ATGGCC	TCTTAT	TGTAA	CAGCTT	TAAGGGCC	AAATG	TGTTGTCA	AAATTACAGAA	TAGCTTAGT-	CCTGTTGCACTACGACAGATG	TCTTGTGC		
										Section 179			
(17267)	17267	17280	17290	17300	17310	17320	17330	17340	17350	17363			
Ad 12 X73487 (16289)	-----AAAAAA	AGCGTC	-----	-----	-----	-----	-----	-----	-----	-----			
SARS-CoV-2 NC_045512.2 (12730)	TGCCGGT	ACTAC	CAAACT	GTCTTGCACT	GATGACAAT	TGCGTTAGCTT	ACTACAGAC	AAACAGTTC	GCTTTTGCCAGAC	TACGTTT	TACAT		
										Section 180			
(17364)	17364	17370	17380	17390	17400	17410	17420	17430	17440	17450	17460		
Ad 12 X73487 (16346)	CC	TTCCATTGTG	CCCCACGCC	TGGGTACC	GTGGGACAA	CTTTTCAG	CGCCGAGC	CACAGCCC	CTAGCCG	TAGACGAGGTCC	ATCACGCCGTAGACGT		
SARS-CoV-2 NC_045512.2 (12826)	TTTACAGGA	-----TT	TGAAATGG	GCTAGATT	CTTAAGAGT	GATGGAAC	TGGT--AC	TATCTATACAG	ACTGGAAC	CACCTTGTAGGTTTG			
										Section 181			
(17461)	17461	17470	17480	17490	17500	17510	17520	17530	17540	17557			
Ad 12 X73487 (16443)	GACGCA	AAGCACTTT	AGCCCCAGCGG	--CAGTA	CGTCGCGTT	GTACAAAGGGG	GC-GC	ACACTAATAC	TTCCATCC	GTGCGTTAC	CACCC	TAGCAT	
SARS-CoV-2 NC_045512.2 (12912)	TTACAG	ACA	CACCTAA	AGGTCC	TAAAGTGA	AGTATT	TATAC	TTATTA	----AAG	GATTAAACAA	ACC--TAAATAGAGGTATGGTAC	TTGGTAGTTT	
										Section 182			
(17558)	17558	17570	17580	17590	17600	17610	17620	17630	17640	17654			
Ad 12 X73487 (16537)	T-CTCTA	ACA--AGC	TG-CGCT	GCCGTT	TTTTCAG	GAT--GG	CTCTTAC	TTGCGG	AA	TGCGCAT	ACC	CATTTCCAGGATACAGAGG	ACGAC--CCCGCC
SARS-CoV-2 NC_045512.2 (13003)	AGCTGCC	ACA	GTACGT	CTACAA	GCTGT	GAATG	CAACAGAA	GTGCTG	CAATTC	AA-CTG	TATATCTTTC	TGTGCTTTT	GCTGTAGATGCTGCTAA

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											Section 183													
(17655)	17655	17660	17670	17680	17690	17700	17710	17720	17730	17740	17751													
Ad 12 X73487 (16626)	G	GAGG	AAAGG	GCTGACC	-GG	GAAACGGTC	-GATTT	-----CG-G	CGGCG	TAGTATGCG	CAGACGCATGAAGGGT													
SARS-CoV-2 NC_045512.2 (13099)	A	GCTT	ACAAG	GATTATCTAG	CTAGT	GGGG	GACAACCAATCACTAATTGTGTTAAGATGTTGTGTACA	CACAC	TGGTACTG	GTCAGGCAAT-AA	CAGT													
											Section 184													
(17752)	17752	17760	17770	17780	17790	17800	17810	17820	17830	17848														
Ad 12 X73487 (16691)	G	GGGT	--GCT	GCCCTTCCTAAT	-TCCACT	--TATT	GCTGCGGCCAT	TGGAGCCGTTC	CCGGAA	TTGCC	TAGCCTTG	CAGGCCTTCTCGAAAAA-												
SARS-CoV-2 NC_045512.2 (13195)	T	A	CACCG	GAA	GCCAA	TATGGAT	CAAGATCC	TTGGTGGTG	CATCGT	TTGTCTGTACT	GCCGTTGCCA	C-A	TAGATCAT	C	AAAA	TC	CTAA	AGG	ATT					
											Section 185													
(17849)	17849	17860	17870	17880	17890	17900	17910	17920	17930	17945														
Ad 12 X73487 (16782)	A	TTAA	ATAAAA	TAAAA	-----AA	ACTT	CCAACTTA	TACTGGTACT	ATGACTGT	---TTAT	GCAG	--ACTA	-----AAT	TGGAAGACAT	CAATTTTTCGT									
SARS-CoV-2 NC_045512.2 (13291)	T	TGTG	ACT	TTAAA	AGGTAAGT	ATGT	TACAAA	TACCTA	-----CA	ACTTGTGCTAA	TGACC	CTGTGGG	TTTTAC	ACTTAAAACA	-CAGTCTGTACC									
											Section 186													
(17946)	17946	17960	17970	17980	17990	18000	18010	18020	18030	18042														
Ad 12 X73487 (16865)	C	G	CTG	GCCCCGCGAC	ACG	GCACGC	GGCCGTA	CATGGGCAC	CTGGAA	CGAGAT	CG---	GCACG	AGC	CAGCTG	AAC	GGGGGCGC	---CTT	CAATT	GGAA					
SARS-CoV-2 NC_045512.2 (13379)	G	T	CTG	CGGTATGTGG	AAA	GGTTAT	GGCTGTA	AGTTGTG	-ATCA	AACTC	CGCGAAC	CCATGC	TTC	AGT	CAGCTG	-ATG	CACAAT	C	TTTT	TAA	CG	GGTT		
											Section 187													
(18043)	18043	18050	18060	18070	18080	18090	18100	18110	18120	18139														
Ad 12 X73487 (16956)	C	AGTA	TC	TG-	GAGCGGT	CTT---	AAAAATT	TG	GTTCC	CACG	ATTAGA	-CAT	ATGG	CA---	C	CAAG	GCGT	TGA	CACGCCA	AA	CCGGCC	AGAT	GCTA	
SARS-CoV-2 NC_045512.2 (13474)	T	G	CGG	TGTAA	GTGCAGC	CCGTCTT	ACACCGT	GCGGCA	CAGG	CACTAG	TACTG	ATGT	CGTATA	CAGG	GCTTT	TGA	CATCTAC	AA	TGATAA	AGTA	GCT-			
											Section 188													
(18140)	18140	18150	18160	18170	18180	18190	18200	18210	18220	18236														
Ad 12 X73487 (17044)	A	G	GGACAA	GT	TAAA	AGAC	CAAAA	TTTT	CAAC	AGAAA	GTTGTAG	-AT	GGTCTGGCTTCGG	GAA	TTAATG	GAGT	TGTAGACATAG	C	AA	TCAG	GCT	GT	A	
SARS-CoV-2 NC_045512.2 (13570)	--	GG	TTTT	GC	TAAA	TTCT	AAAA	AC-T	----	A-ATT	GTTGT	CGCT	TCCAAGAAAAGGAC	GAA	G--	ATG	ACAA	TTTA	ATTGATT	CTT	A	CTTT	GTA	GT
											Section 189													
(18237)	18237	18250	18260	18270	18280	18290	18300	18310	18320	18333														
Ad 12 X73487 (17140)	C	AGA	AAAA	AAT	-----GC	CAAC	CGTTT	AGA	GC	GCGGCCCGA	CGAGG	TAA	TGGT	AGA	G	GAAA	AG	CTG	CCA	CCTCTAGAA	ACTG	-TG	CCCC	GGA
SARS-CoV-2 NC_045512.2 (13657)	A	AGA	GACAC	AC	TTTCTCTAACTA	CAACA	ATGA	AGAA	ACA	ATTTTATA	ATTTAC	T	AAG	-GATT	G	TCC	AG-	CTG	TTG	CTAAACATG	ACT	TC	TTTA	AGTT

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															Section 190																		
(18334)	18334	18340	18350	18360	18370	18380	18390	18400	18410	18420	18430																						
Ad 12 X73487 (17227)	TCCGT	TCC	AACCAAA	GGAGAAAG	CGGC	CCAC	GGCCGG	ATGC	AGGA	AAAC	CTTAG	TAA	CGC	ACACAA	CAG	-AAC	CGC	CGTC	CTATGAGG	AAG	CA	AT	A										
SARS-CoV-2 NC_045512.2 (13752)	TAGAA	TAG	A	C-----	GGT	GAC	AT	GGTA	CCAC	--	ATAT	AT	CAC	G	TCA	ACGT	CTTA	C	TAA	AT-	ACACAA	TG	C	AGA	CCT	CGTC	TATGCTTT	AAG	GC	AT	T		
															Section 191																		
(18431)	18431	18440	18450	18460	18470	18480	18490	18500	18510	18527																							
Ad 12 X73487 (17323)	AAACAAGGA	GCCGC	TCTGT	CACCT	ACC	ACCT	ATCC	CAT	TGAC	CAA	GC	CTATT	T	TACCC	ATG	GCT	AC	TAGAG	TGT	ATGG	AAAA	AC	GAAAAT	GTGCC	TA								
SARS-CoV-2 NC_045512.2 (13841)	TTGATGAAG	GTAAT	TGTGA	CACAT	TAA	AAGA	AATA	CT	TGTC	ACATA	CA	ATTG	T	TGTG	ATG	ATG	ATT	TATT	-TCA	AT	AAAA	GG	AC	TGG-----	TA								
															Section 192																		
(18528)	18528	18540	18550	18560	18570	18580	18590	18600	18610	18624																							
Ad 12 X73487 (17420)	TGA	CCC	TTG	AG	CTGCCT	CC	TTTGCC	AGA	ACCACTAT	CGCG	GAT	CC	CGT	AGG	TT	CC	GT	TCCT	GT	TG----	CA	TCTG	TT	CCA	GTT	GC	ATCG	ACAGTGA					
SARS-CoV-2 NC_045512.2 (13929)	TGA	TTT	TGT	AG	AAAA-C	CC	AGATAT	ATT	A-----	CGCG	TAT	AG	GCC	AAC	TT	AG	GT	GAAC	GT	GTACGC	CA	AGCT	TT---	GTT	AAA	AAAC	AGTACAA						
															Section 193																		
(18625)	18625	18630	18640	18650	18660	18670	18680	18690	18700	18710	18721																						
Ad 12 X73487 (17513)	G-	CGT	CCA	GC	AG	TGCG	GCC	TG	T-----	TGCC-	GTG	GCTAG	-	CTT	TGC	GAA	CC	CA	CATC	-	CAG	T---	AA	TGG	CA	A-----	AGT	AC	---				
SARS-CoV-2 NC_045512.2 (14014)	TT	CT	GT	GAT	GC	CA	TGCG	AAA	TG	CTGGTAT	TG	TTG	GTG	TACT	GAC	AT	TAGAT	AAT	CA	AGATC	T	CA	TGGT	AA	TGG	T	ATGATTT	CGGTG	ATT	C	CATAC		
															Section 194																		
(18722)	18722	18730	18740	18750	18760	18770	18780	18790	18800	18818																							
Ad 12 X73487 (17584)	---	CT	AAA	CAGTA	TT	GTGG	GACT	TGGGAG	TAA	AGTC	TCT	CA	AACGC	CG	AG	CT	GCT	TACT	AA	CATT	TAAA	AA	GACGAGT	GT	T	AATT	CCCAT	CT	TGTGT	TATAC			
SARS-CoV-2 NC_045512.2 (14111)	AAA	CC	ACG	CAGG	T	AGTGG	AGT	TCTGT	TGT	AGAT	TCT	T	ATTATT	CATT	GT	T	AATG	CTA--	TATT	AA	CCT----	TG	ACCAGGGC	T	T	TAAC	T	GCA-					
															Section 195																		
(18819)	18819	18830	18840	18850	18860	18870	18880	18890	18900	18915																							
Ad 12 X73487 (17678)	GCC	TC	CT	ATGTT	AG	CG	CAGAGG	AC	CAA	CG	GT	GA	ATCGC	AGT	CA-CC	ACCAGCGCT	TT	C-	A	AG--	AT	GG	CCAC--	TCCCT	CG	ATGA	TGCCG	C	AGT	G			
SARS-CoV-2 NC_045512.2 (14200)	GAG	TC	AC	ATGTT	GA	CA	CTGACTT	AA	CAA	AGC	CT	TA	CATTA	AGT	GGG	ATTGTT	TAAAA	TATG	ACTTC	AC	GG	AAGAGAG	GTT	AAAA	ACTC	TTTGA	C	CGT	T				
															Section 196																		
(18916)	18916	18930	18940	18950	18960	18970	18980	18990	19000	19012																							
Ad 12 X73487 (17769)	G	T	CTT	ACATGC	AC	AT	CGCC	GG	TCAG	GA	TGCCT	CG	GAGT	AC	TGAG	-TCC	CGGT	C	TGG	TGC	A	ATT-C	GC	CCG	CGC	CA	CGG	ACACCTAC	TT	C	ACCC--	T	
SARS-CoV-2 NC_045512.2 (14297)	A	TT	TT	-----	AA	AT	TATTG	GG	ATCA	GA	CATAC	C	ACCCAA	AT	TG	TGT	TAA	CT	GTT	TGG	ATG	ACAGAT	GC	ATT	CTG	CA	TTG	TGCA	AACT	TTA	A	TGTTT	T

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		Section 197																									
	(19013)	19013	19020	19030	19040	19050	19060	19070	19080	19090	19109																
Ad 12 X73487 (17862)	GGGAAAC	AAGTT	TAGAAA	CCCC	---	ACCGT	TGGCTC	CCAC	CCA	TGA	TGTT	ACC	ACCGA	TGGCT	TCGCA	GCGT	CTGA	ACGC	TGC	GT	--	TTT	GTG	CCC	GTGG		
SARS-CoV-2 NC_045512.2 (14388)	ATTCTCT	ACA-G	TGTTCC	CACC	TAC	AAGT	TTTGG	CCAC	TAG	TGA	GAAA	AAT	AT---	TTGT	TGATG	GT	GT	TCC	A---	TTT	GT	AG	TTT	CAA	CTG	GATA	
		Section 198																									
	(19110)	19110	19120	19130	19140	19150	19160	19170	19180	19190	19206																
Ad 12 X73487 (17954)	ATCGGGA	AGA	---	TACTACC	TACT	CCTAC	-A	AGGCT	CGCTTT	ACG	CTGGCT	GTGGGT	GAC	AACC	GCG	TGTT	AGAC	ATGG	CTAGT	TCT	TACT	TTGAC					
SARS-CoV-2 NC_045512.2 (14478)	CCACTTC	AGA	GAGC	TAGGTGT	TGTA	CATA	ATC	AGGA	TG	TAACTTAC	---	ATAG	CTCTA	GAC	T-TAGT	-TT	AAG	AATTA	CTT	GT	GTA	TGCT	GCT	-G			
		Section 199																									
	(19207)	19207	19220	19230	19240	19250	19260	19270	19280	19290	19303																
Ad 12 X73487 (18046)	ATT	CGA	GGGG	TACT	GGAT	CGT	---	GTCC	CAG	TTT	TAA	AGCCC	TA	---	TT	CGGAAC	CGCC	TACAATT	CTTT	GGCAC	CAA	AGGC	GCT	CT	---	A	
SARS-CoV-2 NC_045512.2 (14570)	ACC	CT	-GCTA	TG	CAC	GC	TGC	TCTG	TAAT	CTA	TT--	ACTAGA	TA	AACGCAC	TACGTG	CTTT	TCAGTAG	CTG	CACTTA	CT	AA	CAAT	GT	TGCT	TTTTCA		
		Section 200																									
	(19304)	19304	19310	19320	19330	19340	19350	19360	19370	19380	19390	19400															
Ad 12 X73487 (18131)	ATGCT	TCA	CAATG	G	---	TCAG	AT--	AACGC	TA--	AGCT	TAAT	TAC	CTTT	GTCTC	-AGG	CGCCG	TAT	--	CTTAGC	GACACT	TA--	TC	ACCGCCG	CCGA			
SARS-CoV-2 NC_045512.2 (14664)	A	ACTG	TC	AA	ACCC	G	GTAAT	TTTA	ACAA	AGACT	TCTAT	GACT	--	TGCTGTG	TCTA	AGG	GTTTC	TTTAA	-GGAAG	GAAGT	TCTGT	TGA	AT-TAA	AACA			
		Section 201																									
	(19401)	19401	19410	19420	19430	19440	19450	19460	19470	19480	19497																
Ad 12 X73487 (18213)	-----	TGG	TAT	TAA	AGT	TGG	AACA	GACA	CGC	CAG	G	CAGGCG	-	CGG	CGGTG	-----	-----	TATG	CC	AA	CAAA	AA	-----	CTTAT			
SARS-CoV-2 NC_045512.2 (14757)	CTTCTTC	-TT	TGC	TC	AG	GA	TGG	TAA	TGCTG	TAT	CAGC	GATTAT	GACTA	CTAT	TCGTTATA	ATCTACCA	ACAATG	TGTG	AT	CAG	ACA	ACTA	CTAT	T			
		Section 202																									
	(19498)	19498	19510	19520	19530	19540	19550	19560	19570	19580	19594																
Ad 12 X73487 (18277)	CAGCC	CAGAG	CCGCA	AGT	AGG	ACCA	AGT	GA	ATG	CAACACCA	G	CAT	TG	AAAACG	TTAA	GCT	GGCGGG	AGG	G	CA	T	TAAAG	CA	AAC	AC	TGCAATGC	AGC
SARS-CoV-2 NC_045512.2 (14853)	TGTAG	TTGA	AGTTG	TTG	ATA	AGT	ACT	TTG	ATT	G	TTACGAT	G--	GTG	GCTGTA	TTAA	TGCT	AA--	CC	AGT	CA-T	--	CGTC	AAC	ACCT	-----	AGA	
		Section 203																									
	(19595)	19595	19600	19610	19620	19630	19640	19650	19660	19670	19680	19691															
Ad 12 X73487 (18374)	CGT	GCT	ATGG	CTCC	TACGCT	GT	TCC	AA	CCAA	C	GAACACG	GAG	GACA	ATCCA	AGG	ATG	-----	ACA	ACA	TT	GAAC	---	TTAAG	TT	CT--	TT	GATT
SARS-CoV-2 NC_045512.2 (14937)	C	AAATC	AG--	CTGGT	-TTTC	CAT	TTT	AA	TAA	AAT	TGGGTA	AG--	GCTA	--	GACTTT	AT	TATGATTCA	ATGAG	-TT	ATGAGGAT	CAAG	AT	TGCAC	TT	TTTCG		

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											Section 204
	(19692)	19692	19700	19710	19720	19730	19740	19750	19760	19770	19788
Ad 12 X73487 (18458)	CAGCTAA-----CAATGCAGCAAAACACTGCTCAAGTT----GTGTTCTATACCGAAGACGTAAACCTTGAAATGCCAGACACGCACTCTTG										
SARS-CoV-2 NC_045512.2 (15026)	CATATACAAAACGTAATGTCAATCCCTAGCTATA---ACTCAAAATGAATC-TTAAGTATGCCATTAGTGCAAAGAATAGAGCTCGCACCGTAGCTGGTG										
											Section 205
	(19789)	19789	19800	19810	19820	19830	19840	19850	19860	19870	19885
Ad 12 X73487 (18539)	TGTTTAAGCC--TACTGTTACCAATGGAACAAATTGCTTCTGAGTTCGCTGTTGGGACAGCAAGCAGCGCCAAATAGAGCAAACTACATTGCATTTCAG										
SARS-CoV-2 NC_045512.2 (15119)	TCTCTATCTGTAGTACTATGACCAATAGACAGTTTCATCAAAAATATATT-----GAATCAATAGCAGCGCC-AC TAGAG-GAGCTAC--TGTA-----										
											Section 206
	(19886)	19886	19900	19910	19920	19930	19940	19950	19960	19970	19982
Ad 12 X73487 (18633)	AGATAAATTTT---ATTGGCCTGATGTTA----TTACAACAGTACAG-GCAACA TGGGTGATTGCGCCGGCAAGCTTCCAACTTAACGCAGTAGTAG										
SARS-CoV-2 NC_045512.2 (15202)	--GTAATTTGGAACAAGCAAAATCTATGGTGGTTGGCAACAATGTTAAACAC TGTATTATAGTGATGTAGAAACCTC-ACCTTAGTGGT----TGG										
											Section 207
	(19983)	19983	19990	20000	20010	20020	20030	20040	20050	20060	20079
Ad 12 X73487 (18722)	-ACCTGCAAGACAGAAATACAGAGCTGTCATAC-CAGTTAATGCTGGATGCTTTGGGAGAC-----AG--AACACGGTACTTTTCCCT----TGTGG										
SARS-CoV-2 NC_045512.2 (15292)	GATTATCCTAAATGTGATAGAGCCATGCTTAACAT-GCTTAGAATTATGCGCTCACTTGTTCTTGCTCGCAACAATACACGTGTTGTAGCTTGTCTC-										
											Section 208
	(20080)	20080	20090	20100	20110	20120	20130	20140	20150	20160	20176
Ad 12 X73487 (18805)	AATTCCGCAGTGGACAGTTACGACCCTGACGT-----TCGCGTTATTGAGAAATCACGGGGTAGAGGATGAACCTACCAAAATTATTGCTT-TCCTCTTA										
SARS-CoV-2 NC_045512.2 (15387)	-ACA CCGTTTCTATAGATTAGCTAATGAGTGTGCTCAAGTATTGAGTGAAATGGTCATGTGTGGCGGTTCACTATATGTTAAACCAGGTGGAACCTC										
											Section 209
	(20177)	20177	20190	20200	20210	20220	20230	20240	20250	20260	20273
Ad 12 X73487 (18896)	GCGCAGTAGGTGAATAAAAAAT--TACAAAGGCAT---TAA GCCAGATACCGAGGAGGAGGTGCTGGAC TGCCGACAACACTGTCAGTGAAGC-										
SARS-CoV-2 NC_045512.2 (15483)	ATCAGGAGATGCCACAAGTGCTTATGCTAAATAGTGTTTTTAAACATTTGTCAAGCTG--TCACG--GC CAATGTTAATGCACTTTTATCTACTGATGG										
											Section 210
	(20274)	20274	20280	20290	20300	20310	20320	20330	20340	20350	20360 20370
Ad 12 X73487 (18987)	AAACCAATAGGCATTGGGAATATAG-CCGCC---ATGGAAATTAATTG CAGGCTA-ATTTGTGGAGAAGCTTCTTGTAC-----TCAAATGTGGG										
SARS-CoV-2 NC_045512.2 (15576)	TAACAAATTCGCGATAAGTATGTCCGCAATTTACAACACAGACTTTATGAGTGTCTCTATAGAAATAGAGATGTTGACACAGACTTTGTGAATGAG										

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															Section 211																															
	(20371)	20371	20380	20390	20400	20410	20420	20430	20440	20450	20467																																			
Ad 12 X73487 (19074)		CTTAT----	ACCTAC	CAGAC---	GACTTAA	AAATAC	CACCTC	CAGGAACAT	AAAA-----	CTACCTT	-GATA--	ACAAGAA	CACCT	ACGAGT	ACATGAA																															
SARS-CoV-2 NC_045512.2 (15673)		TTT	TACGCATAT	TTGCGT	AAACATTT	CTCAA	TGATGAT	TACTCTCTGAC	GATGCTGTTGTG	TGTTT	CAATA	GCAC	TTATG	CATCT	CAAGGTCT	AGTGG																														
															Section 212																															
	(20468)	20468	20480	20490	20500	20510	20520	20530	20540	20550	20564																																			
Ad 12 X73487 (19155)		CG--GGCGTGTG	ACTGCC	CCCGGG	GTTGGT	TGGATAC	CTATGTC	AATAT	CGGCGC	TCGCTG	GTCC	CAGATGT	GATGGAT	AATGT	TAAAC	CCCTTT	TAA	CC																												
SARS-CoV-2 NC_045512.2 (15770)		C	TAGCATAA	AGA	ACTTTA	AGTCA	GTTCT	TATTA	CAAA	CAAA	ATGT	TTTTATG	TC	TGAAG	CA-AA--	ATGT	TGGACTG	AGAC	T	AC	CTTAC	TAA	GG																							
															Section 213																															
	(20565)	20565	20570	20580	20590	20600	20610	20620	20630	20640	20650	20661																																		
Ad 12 X73487 (19250)		ACCA	C	CGAA	AA	CGCAG	GGGT	TGCG-C	TACAGAT	CCA-T	GTTG	CTAGG	CAATG	GG-AG	ATT	TGTT	CCTTT	TT	CACATT	CAGGT	GC	CGC	-AAAA	AT-T	TTTT																					
SARS-CoV-2 NC_045512.2 (15864)		ACC	T	CATG	AA	TTTT	GCTC	TCAACA	TACA	ATGCT	AGT	TAAA	CAG	GGTG	ATG	ATT	TGT	ACCTT	-C	TTACC	CAGAT	TC	CAT	CAAG	AA	TCC	TAGGG																			
															Section 214																															
	(20662)	20662	20670	20680	20690	20700	20710	20720	20730	20740	20758																																			
Ad 12 X73487 (19342)		GCC	AT	CAG	-----	AAAT	TTGT	TTGCT	GTTGCC	CGGTT	CC	TACACT	TTA	CGA	AT	GA	--AC	TTTA	GAAAGG	ATG	TAAAC	ATG	ATT	CTT	CA	GAGC	ACA	CT																		
SARS-CoV-2 NC_045512.2 (15958)		GCC	GG	CTG	TTTT	TGT	AGAT	-GAT	TAT	CGTAA	AAAA	CAG	AT	GG	TACACT	TTA	TG	AA	CCGT	TCGT	G	CTTT	AGC	TAT	AT	AG	ATG	TT	ACC	CA	CTTA	---	CT													
															Section 215																															
	(20759)	20759	20770	20780	20790	20800	20810	20820	20830	20840	20855																																			
Ad 12 X73487 (19431)		G--GGA	AT	TGA	TCT	TCGGG	TG	ACGGA	GCCAG	CGTTC	GC	TT	TGAC	AAC--	AT	TGCCCT	G	AT	GCTA	ACTT	-TTTT	CCC	AT	GC	ACAT	A	ACAC	AG	---																	
SARS-CoV-2 NC_045512.2 (16051)		AAAC--	A	TCC	TAA	TCAGG	AGT	AT	GCT	GATGT	CT	TTC	AT	TT	GT	AG	TT	ACA	AT	ACATA	AGAA	GCTA	CAT	TGAT	TAG	TTA	AC	AG	ACA	AT	GTT	AG	ACA													
															Section 216																															
	(20856)	20856	20870	20880	20890	20900	20910	20920	20930	20940	20952																																			
Ad 12 X73487 (19521)		T	T	CTACT	T	TAG	AA	GC	CATGT	T	T	AGAA	ATG	AC	AC	CAA	C	GACCAG	T	CTT	T	TAA	CGAT	T	TA--	TTT	G	TG	-T	GCT	G	CAA	ACA	T	G	T	AT	C	CA	TC	CC	A	---			
SARS-CoV-2 NC_045512.2 (16145)		T	G	TATTC	T	GTT	AT	GC	TTAC	T	AT	GAT	AC	ACTT	CAA	GG	----	T	ATT	GGG	A	CC	TG	AGT	TTT	AT	G	AG	GCT	AT	G	T	ACA	C	AC	CG	AT	A	CAG	TC	TT	A	CAG			
															Section 217																															
	(20953)	20953	20960	20970	20980	20990	21000	21010	21020	21030	21049																																			
Ad 12 X73487 (19612)		GCT	AAC	G	CCA	C	---	CAGCG	T	GCC	CAT	TT	CA	ATAC	CTTC	G	CG	AA	AT	TG	GG	CG	GC	AT	T	T	AG	AG	CT	G	G	AG	CT	TT	AC	T	C	-G	CC	T	AAA	ACT	AA	AG	AA	ACT
SARS-CoV-2 NC_045512.2 (16237)		GCT	GTT	G	GGG	C	TTG	TGTT	C	TTT	G	CA	TT	CA	CAGA	CTTC	A	TT	AA	GAT	TG	T	GT	GCT	T	G	CAT	AC	G	TAG	-ACC	AT	T	C	T	TAT	G	TT	GT	AAA	TG	CT	G	TTA	CG	AC

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											Section 218	
	(21050)	21050	21060	21070	21080	21090	21100	21110	21120	21130	21146	
Ad 12 X73487 (19705)	CCTTCCCTGGGT	TCAGGGTT	TGACCCCT	ACTTTGTA	TA-----	CTCTGGAACCA	ATCCCTAT	TTA-GACG	GCACTTTT	TAC--	CTAAACCACACTTT	
SARS-CoV-2 NC_045512.2 (16333)	CATG-----	TC---A	TATCAACATC	AC---A	TAAATTAGT	CTTGCTGTGTT	AATCCGTAT	GTTT---	GCAA---	TGCTC	CAGGTTGTGATGTC	
											Section 219	
	(21147)	21147	21160	21170	21180	21190	21200	21210	21220	21230	21243	
Ad 12 X73487 (19794)	TAGAAAGGTGTCA	ATCATGTT	TGACTCCTCCG	TGAGTT	TGGCCT	TGAAATGA	ACGTTTGCT	AACCCCAA	ATGAATTT	GAAATAAAG	CGTCTGTG---	
SARS-CoV-2 NC_045512.2 (16408)	ACAGATGTGACTC	AAC TTAC	TTAGG-AGGTA	TGAGCT	TATTAT	TGTAA--	ATCACATA	--AACCA	CCCATTA	GTTTTTCC	ATT--GTGTGCTAATGGA	
											Section 220	
	(21244)	21244	21250	21260	21270	21280	21290	21300	21310	21320	21340	
Ad 12 X73487 (19888)	GATGGGGAGGG	ATACAAT	GTGGCCCA	ATGCAAT	TATGACTAA	GGATTGG	TTCTAAT	TACAAATGC	TTAGTCATTA	CAACATTG	GATACCAAGGTTTTT	
SARS-CoV-2 NC_045512.2 (16498)	CAAGTTTTTT	GGTTAT	ATAAAATAC	ATGTGT	TGGTAG	CGATAA	TGTTACTG	ACTTTAA----	TGCAATTG--	CAACATGT	GACTGGAACAAATGCT	
											Section 221	
	(21341)	21341	21350	21360	21370	21380	21390	21400	21410	21420	21437	
Ad 12 X73487 (19985)	ACATTCCAG	AGAGCTA	CAAGGACC	GCAATGTATT	CCTTTAG	AAACTTT	CAGC	CCATGA	GTAGGC	AAGTTGTG	-GATACCA	CAGAAATATAAGAACT
SARS-CoV-2 NC_045512.2 (16588)	GGTGATTAC	ATTTTAG	CTAACACC	TG-TACT	GAAAGACT	CAAGC	TTTG	CAGCAG	AAACG	CTCAAAG	CTAC	TGAGGAGACATTTAAAC
											Section 222	
	(21438)	21438	21450	21460	21470	21480	21490	21500	21510	21520	21534	
Ad 12 X73487 (20081)	ACAAAAAG	TAAACG	TAGAGTTTCAA	CATAACA	ACTCAG	GATTCT	GGGAT	ACCTGG	CCCC	ACTATGC	GGGAGGGA	CAAGCTTACC
SARS-CoV-2 NC_045512.2 (16684)	GGTATT--	GCTACT	GTA	CGTGAAGTG	CTGTCTG	ACAGAG	AATTAC	ATCTT	ATGGGAAG	TTGGTAA	ACCTAGAC-----	CACCAC
											Section 223	
	(21535)	21535	21540	21550	21560	21570	21580	21590	21600	21610	21631	
Ad 12 X73487 (20175)	CTATCCCT	ACCCTCT	TATAGGCCA	AACAGCTGT	-GAAAGCAT	CAACAG	AAAGTTT	CTATG	CGATCG	TGTTAT	GTGGCGCATCCC	ATTTTC-TA
SARS-CoV-2 NC_045512.2 (16773)	TATGTCT	TTACT	GGTTATC	GTGTAA	CTAA	AAACAG	TAGGAGA	-G--TACA--	CCTTTG	AAAAAGGTG	ACTATGGTG	ATGCTGTG
											Section 224	
	(21632)	21632	21640	21650	21660	21670	21680	21690	21700	21710	21728	
Ad 12 X73487 (20270)	GTAACCTT---	CATGTCT	ATGGGGGCGC	TAA	CGGATCT	TGGCA	AAATAT	TGCTGT	TACGCA	AAC	T	CAGCCCCATGC
SARS-CoV-2 NC_045512.2 (16865)	TTTACCGAGGT	-ACAA	CAACTTACAAAT	TAA	ATGTTGG	TGATTATTT	TGTGCTG	-ACATC	ACATAC	AGTA	ATGC-----	CATTATGAAGTGC

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											Section 225					
(21729)	21729	21740	21750	21760	21770	21780	21790	21800	21810	21825						
Ad 12 X73487 (20363)	ATCCAATGGATGAGGCC	TACCCCTTCTTATGTTT	TATTTGAAGTTTTTCG	ACGTGGTACGCATTTC	ACAGCCACACCGCGGC	GTCAT	TGAAGCGGTCTA									
SARS-CoV-2 NC_045512.2 (16947)	ACCTA	CACTA	GTGCCACAAGAGC	ACATATGTTAGAA	TT-----	ACTGGCTT	TATACCCA	ACACTCAATATCTCA--G--	ATG--	AGTTTCTA						
											Section 226					
(21826)	21826	21840	21850	21860	21870	21880	21890	21900	21910	21922						
Ad 12 X73487 (20460)	CTGCGCACGCCCC	TTCTCGGGCGGGT	AACGCTACCA	CCCTAAG	AAG---G	ACCTC	--CCA	GA-CTG	CTG-TA	TGGGTTCAAGCGAACAGGAGCTGA						
SARS-CoV-2 NC_045512.2 (17027)	GCAATGTTGCAAA	TTATCAA	-----	AAGGTTGGTA	TGCAA	AAGTATT	CTACTCCAGG	GACAC	CTGGTAC	TGGTAAGAGTCATTTTGCTATG						
											Section 227					
(21923)	21923	21930	21940	21950	21960	21970	21980	21990	22000	22019						
Ad 12 X73487 (20550)	CGGCCATTGTT	CGAGATCT	AGGCTGTG	GACCTTATTT	TT-TTGGGAAC	CTTTGA	CAAAC	GTTT	TCCGGGTTT	TGTGTCTCGCGACCGCTTATCATGT						
SARS-CoV-2 NC_045512.2 (17118)	CCTAGCTCTCT	TACTACC	CTTCTGCTC	GATAGTGTAT	TACAGCTTGCT	CTCATG	CGCT	GTTGATGCAC	TATGTAG	AAGGCATT-AAAAATAT--TTG						
											Section 228					
(22020)	22020	22030	22040	22050	22060	22070	22080	22090	22100	22116						
Ad 12 X73487 (20645)	GCTATTGT	TAA---CA	CTGCCGGT	-CGGAAACT	GGGGCGTAC	ACTGGCTGGCTT	TGGA	TGGAA	CCCCAATCG	CACACTTGCTATTATTCGAT						
SARS-CoV-2 NC_045512.2 (17212)	CCTATAGATA	TAAATGT	AGTAGAAT	TATAC	CTGCACGTGCT	CGTGTAGAGTGT	TTTGAT	TAAAT	TCAAAGTGA	ATTCAA	CATTAG-A-ACAGTAT----G					
											Section 229					
(22117)	22117	22130	22140	22150	22160	22170	22180	22190	22200	22213						
Ad 12 X73487 (20738)	CCATTTG	GATTTTCTGAT	-CAAC	GACTAAAC	AAATCTAT	CA	GTTTGAG	TACGAAAG	TCGTGTG	CGCCGTAGTGC--GCTAGCGGCC	ACTAAAGACC					
SARS-CoV-2 NC_045512.2 (17303)	TCTTTGTACT	GTAA-ATG	CATTGCTGAGAC	---GAC	AGCA	---GATA	TAGTTGTCT	TTTGATG	AA--ATTTCAATG	GCA	CAAAATTATGAT--TTG					
											Section 230					
(22214)	22214	22220	22230	22240	22250	22260	22270	22280	22290	22300	22310					
Ad 12 X73487 (20832)	GATGCGT	TACCCTAG	AAAAGTCAAC	CAAACTG	TACAA	GGACCG	TTTCTG	CAGCGTGC	GGCC	TGTTT	TGTTGTATGTTCTTACA	CGCTTTACTCA				
SARS-CoV-2 NC_045512.2 (17389)	AGTGTTGT	TCAATGCC	AGATTAC	GTGTAA	GCAC	TATGTGTAC	A-TTGG	CAC--	CTGCTCAAT	TACCTG	CACACGC	---ACA	TTGC-TA	ACTAA		
											Section 231					
(22311)	22311	22320	22330	22340	22350	22360	22370	22380	22390	22407						
Ad 12 X73487 (20929)	CTGGC	CTGACC	ATCCAATGG	ATAAA	AATCC	CACTAT	TGGA	CCTACTTA	CTGGGG	TGCT	AAATTG	TATGCTA	CAAAGTCCTCAGGT	AGTGGGCACATTG		
SARS-CoV-2 NC_045512.2 (17478)	GGGCA	CAC	TAGAA	CCAGAAT	ATTTC	AATTC	-AGTGT	TAGTA--	ACTTA	-----	TG---	AAAAC	TATAGGT	CCAGACATGTTCC	TGGA	AACTTGTGCG

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											Section 232									
(22408)	22408	22420	22430	22440	22450	22460	22470	22480	22490	22504										
Ad 12 X73487 (21026)	CAACGCAATCAGGAATGAATTGTATAAATTCCTTAACAATC-TGTCCTCCCTTACTT	TCGT	CGTCAACCCGCGAGCGCATAGAAAAAGCTACATCTTT																	
SARS-CoV-2 NC_045512.2 (17563)	CGTTGT--CTGCTGAATTGTGACACTGTGA---GTGCT--TTGGTTATGATTAATAAGCTTAAAGCACATAAAGACAAAATCAGCTCAATGCTTT																			
											Section 233									
(22505)	22505	22510	22520	22530	22540	22550	22560	22570	22580	22590	22601									
Ad 12 X73487 (21119)	ACTAAAAATGCAAAATGGACTCAAA---TAACGTGTACACAAATTAATAAATAACCA	CA----TTT	TATTAGC----	TCATTGGAGTACAAAGCT																
SARS-CoV-2 NC_045512.2 (17653)	AAAATGTTTATAAAGGGTGT-TATCACGCATGATGTTTCATCTGCAATTAACAGGCCACAAATAGGCGTGGTAAGAGAATTCCTTACACGT-AAACC																			
											Section 234									
(22602)	22602	22610	22620	22630	22640	22650	22660	22670	22680	22698										
Ad 12 X73487 (21204)	TGACTGTTTTATTAAAAATCAAAATG-GCTCTTGCGGACAGTCGCG--TGGTTGGTGGG	CAGG	GATATGTTTTCTGTACT-GCAA	ACGCTGATGCCAC																
SARS-CoV-2 NC_045512.2 (17748)	TGCTTGGA---GAAAAGCTGTGCTTTATTTCACCTTATAATTCACAGAAATGCTGTAGCCTCAAA	GATT	TT---GGGACTACCAA	CTCAAAC	TGTTGA															
											Section 235									
(22699)	22699	22710	22720	22730	22740	22750	22760	22770	22780	22795										
Ad 12 X73487 (21297)	TTGAATTCTGG---AATAACAAGCCTAGGGGGGGAGC---CGTCAAAATTTTC---TCC	CACAGCT-GGCGCAC	AAG----	TTGCAGGGCGCCCA-																
SARS-CoV-2 NC_045512.2 (17838)	TTCATCAGGGGCTCAGAAATATGACTA--T-GTCAATTCAC	TCAAA	CCACTTGAAACAGCTCACTCTTGTAATGTAAACAGATTTAATGTT-GCTAT																	
											Section 236									
(22796)	22796	22810	22820	22830	22840	22850	22860	22870	22880	22892										
Ad 12 X73487 (21379)	-----TAA	CATCAGGAGCAGAAATCTTGAAGTCGC	AA-TTAGGGCCA--G	ATTGC-CGCGCGCA	TTTGC	GA-TAA	ACTGGA	TTTGC	GCACTGA	AAAA										
SARS-CoV-2 NC_045512.2 (17931)	TACCAGAGCAAAA-GTAGGC	ATACTTTGCAT----	AA	TGTCTGATAGAGACCTTTATGA	CAAG--TTTGC	AATTTACAAG	TCTTGA--A	ATTCC	ACGT											
											Section 237									
(22893)	22893	22900	22910	22920	22930	22940	22950	22960	22970	22989										
Ad 12 X73487 (21466)	CC	AACA	AA	CACGGAT	ACTTAAT	ACTGGCTAA	CGCTCCAGGGT	CGGTTACTTCGTTG	ATA	TCAATGTTATC	CACATTGCT--GAGGTTA	AAAGG	AGTG							
SARS-CoV-2 NC_045512.2 (18019)	--	AGG-AA	TGTGGCA	ACTTTACA	AGCTGA	AAATGTAAACA	GGACTCTTTAAAGA	TTGTAGT--AAGGTAAT	CAC	TGGTTACATCC	TAC	A	AGG	C-AC						
											Section 238									
(22990)	22990	23000	23010	23020	23030	23040	23050	23060	23070	23086										
Ad 12 X73487 (21561)	ATTT	TACACA	-----	GTTGAC	G	CCCC	AT	C	GTGGCAGGCCATCTT	GCTTGT	TAAACA	TT	CGCAGCGCA	CTGGCAT	----	AAGGA	G	AGTTT	TG	
SARS-CoV-2 NC_045512.2 (18110)	---C	TACACA	CCTCAGT	GTTGAC	A	TAA	AT	C	AAAACT-----	GAAG	GT	TATGT--G	TTGA	CAT--AC	CTGGCAT	ACCT	AAGGA	CAT	GACCT	TAT

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Section 239												
	(23087)	23087	23100	23110	23120	23130	23140	23150	23160	23170 23183		
Ad 12 X73487 (21647)		CCCATGTCG	CATGTGAGG	GTAGTCGG	CCAGCATA	AAAAGC--T	TCAATTT	GCCTAAAAG	CTATTTGAGC	CTTCATTTCCTTCAGAAATAAAAC	AAGCCGC	
SARS-CoV-2 NC_045512.2 (18193)		AGAAGACT-	CATCTCTAT	GA--TGG	GGTTTAA	AAATGAATTA-	TCAA	GTTAATGGTTAC	CTA---A--CAT	GTT-TATCA	CCCGCGAAGAAGCTAT	
Section 240												
	(23184)	23184	23190	23200	23210	23220	23230	23240	23250	23260 23270 23280		
Ad 12 X73487 (21747)		AGGACTTT	TCCGGAGAA	GAATTATTCC	CGCAGCCAA	CATCATGA	AAACAGC	AGCGGCATC	GTCTGTT	TTTTAATTTGAACTAC	ATTACGCCCCAGCG	
SARS-CoV-2 NC_045512.2 (18279)		AAGACAT	TGTACGTGCAT	GATTGGCTT	CGATGTCG	AGGGGTGTC	ATGCTAG	AGAGCTGTTG	TACCAATTT	-----ACCTT	TACAGCTAGGTT	
Section 241												
	(23281)	23281	23290	23300	23310	23320	23330	23340	23350	23360 23377		
Ad 12 X73487 (21839)		GTTTTCG	CCACC	TTGGCTTTCG	AGGGTTC-T	CTTTCAACGC	TCGTTG	CCACTTT	TCGCTGGTTAC	ATCCATTTCCACCA	AATGCTCTTTGCGCAC	
SARS-CoV-2 NC_045512.2 (18371)		TTTCTA	CAGG-TGTTAA	CTAGTTGCTGT	ACCTACAGGTTATG	TGATAC	ACCTAA	TAATA--C	AGATTTT	TCCAGAGTTAG--	TGCTAAACCAC	
Section 242												
	(23378)	23378	23390	23400	23410	23420	23430	23440	23450	23460 23474		
Ad 12 X73487 (21935)		CATCTCC	ATTCATGC	AGGCATCTAA	AGCTCCCTTCG	C-----GCT	CGGTAC	ACTTATGCTCCC--	ACACGCAGCA	ACCGGTGGGTCTCCAGGAAT		
SARS-CoV-2 NC_045512.2 (18461)		CGCCTGG	AGATCA-----	ATTAAACA	CCCTCATAC	CACTTATG	TACAAAGG	ACTTCCTTGAATGTAGT	GC	GTATAA-AGATTGTAC----	AAT	
Section 243												
	(23475)	23475	23480	23490	23500	23510	23520	23530	23540	23550 23560 23571		
Ad 12 X73487 (22024)		TCGTGTG	GACACCGGCA	-TAA	GCTTG	CATATATCC	TGCA	AAAAGCGT	CCCATGAGCT	CCTGAAAGGTTTTTTTG	GGATGAAAAAGTC-AGCTGC	AA
SARS-CoV-2 NC_045512.2 (18546)		GTAAAGT	GACACACTT	AAAAATCT	CTCTGAC	AGAGT	CGTATTTGT---	CTTATGGGC	ACATGGCTTTGA-G	TTGACATCTATG	AAGTATTTTGTGAA	
Section 244												
	(23572)	23572	23580	23590	23600	23610	23620	23630	23640	23650 23668		
Ad 12 X73487 (22119)		CCGCCTTTT	CTTCGTTG	AGCCATG--T	TGTGCATATTTTC	TGTACA	CCTGCC	CTGATCCGG	CAAAAACG	AAAGGTGGCGCGCT	CGTCGTGATC	
SARS-CoV-2 NC_045512.2 (18639)		AATAGGAC--	CTGAGCGC	ACCTGTTGTC	TATGTGATAGACG	TGCC	ACATGCTTTT	CCACTGCTT	CAGACACTTATGCC---	TGTTGGCATCAT	TTCTA	
Section 245												
	(23669)	23669	23680	23690	23700	23710	23720	23730	23740	23750 23765		
Ad 12 X73487 (22214)		CACATGGTAC	TTTT--C	ATTAGCA--	TAGCCAT-	GGCTTC	---ATGCCTT	TTTCC	CAGCTGAAA	CTAGGGGCTGGCTTGCCGGAT	TGCGAA	CAA
SARS-CoV-2 NC_045512.2 (18731)		TTGGATTG	ATTACGT	CTATAAT	CCGTTATATG	ATGATGTT	CAACAATGGGG	TTT	TACAGG--T	AACCTACAAAGCAAC	CATGATCTGTATTGT	CAA

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										Section 246																						
(23766)	23766	23780	23790	23800	23810	23820	23830	23840	23850	23862																						
Ad 12 X73487 (22303)	CAA	CAACAT	TTC	TTTT	CATT	TTTCG	TCGC	TGT	TTT	TGAGCGGA	AAGC	----	TTCAAA	-AC	GTGT	AC	CTG	CCTGG	TTT	-CCATT	TT	TTGA	AAA	GACT	G----							
SARS-CoV-2 NC_045512.2 (18826)	GTC	CATGG	TAA	TGCA	CATG	TAGC	TAG	TGT	GATG	CAAT	CATG	ACTAGG	TGTCT	AGCT	GTCC	AC	GAG	TGCTT	TGT	TAAGCG	TG	TTGA	CTG	GACT	ATTG							
										Section 247																						
(23863)	23863	23870	23880	23890	23900	23910	23920	23930	23940	23959																						
Ad 12 X73487 (22391)	-	AGA	----	ACCG	TCTGC	-	ATGA	TGCAT	A-	ATGCGGA	CGG	GCGG	CAT	---	GTG	AA	C	CAT	TAC	TCC	TAAA	A	CTGC	TCT	TGGT	G	GTTCTG	CCT	TCT	C		
SARS-CoV-2 NC_045512.2 (18923)	A	ATA	TCCT	ATAA	TG	GTG	ATGA	ACTGA	AG	AT	TAATG	CGG	CTTGT	AGAAA	GGTTC	AAC	A	CAT	GGT	TGT	TAAA	G	CTGC	AT	TATTAG	G	CAGACAAA	T	TCC	C		
										Section 248																						
(23960)	23960	23970	23980	23990	24000	24010	24020	24030	24040	24056																						
Ad 12 X73487 (22478)	TTC	TCT	TGCACT	CTC	TGG	GGAAAG	---	AGG	TAT	CGCAGCCAT	-----	AG	ATT	-	TCT	TGAC	TTTT	--	TTCT	T	TG	-----	---	AG	GT	AAA	---					
SARS-CoV-2 NC_045512.2 (19020)	AGT	TCT	TCACGA	CAT	TGG	TA	ACCCTAA	AG	C	TAT	TAAGTGTG	T	ACCTCA	AG	C	T	GAT	TG	TAGAA	T	GGAAG	TTCT	A	TGATGCACAGCCTTGT	AG	TG	A	CAA				
										Section 249																						
(24057)	24057	24070	24080	24090	24100	24110	24120	24130	24140	24153																						
Ad 12 X73487 (22548)	-----	G	CACA	---	GCT	TCCAGT	-----	T	CTT	CTTCGCT	TCGG	AAT	C	CAGAAA	--	GT	ATC	TGCC	C	ATTTT	T	--	GGC	G	CGGG	CGGCTG	AG					
SARS-CoV-2 NC_045512.2 (19117)	GCTTATAAAATA	GA	GA	AATTAT	TCTA	--	TCTTTATG	G	CAC	ACATTC	T	GACA	AAT	T	CA	CAGATG	GT	G	TAT	TGCC	T	ATTTT	T	GGAATT	G	CAATGTCGAT	AG					
										Section 250																						
(24154)	24154	24160	24170	24180	24190	24200	24210	24220	24230	24240	24250																					
Ad 12 X73487 (22621)	-----	-----	-----	-----	CG	CTGC	-G	CTC	TG	GGG	--	TGCG	CT	CCCTC	TG	TGAG	TGCTGAT	TG	CTGGC	CA	TT	AT	T	TAAT	CCTAGG							
SARS-CoV-2 NC_045512.2 (19212)	ATATCCTGCTAATTCCATTGTTTGTAGATT	TG	ACTA	-	GAG	TG	CTATC	T	AAC	CT	TAACT	TG	CCT	G	TTGTGA	TG	TGGCAG	TT	TG	TATG	TAAATAA											
										Section 251																						
(24251)	24251	24260	24270	24280	24290	24300	24310	24320	24330	24347																						
Ad 12 X73487 (22684)	CA	AAGAAACA	CAT	GATGGA	-	TCT	G--	GAGCC	A	CAG	GAAAGC	TTAA	CCGCCC	-	CA	CCG	C--	TCCCG	C	ATTGGCGCT	AC	G	CTGT	CAT	GGA	-	GAAGG					
SARS-CoV-2 NC_045512.2 (19308)	AC	ATGC	ATTC	CA	CACACC	AGCT	TTGATAAA	AGT	G	CTTTT	TG	TTAA	TTTAAAA	CA	ATTAC	CAT	TTTTT	CT	ATT	ACTCTG	AC	AGT	--	C	CATG	TGA	G	TCTC				
										Section 252																						
(24348)	24348	24360	24370	24380	24390	24400	24410	24420	24430	24444																						
Ad 12 X73487 (22774)	A	CAAAA	GT	CT	ACT	CAT	-----	A	CCCC	----	AAG	A	G	CACCG	GT	---	G	AGCA	GAA	C	-----	T	TG	-----	GG	CTAC	G	AGAC	T	CCC	C	CCGA
SARS-CoV-2 NC_045512.2 (19403)	ATGG	AAAA	CA	AG	TAG	T	GTCAGAT	A	TAGATTATGTAC	C	ACT	AAAGT	CTGCT	ACGT	G	T	ATAACACGT	T	GCAATTTAGGT	GG	TGCT	G	TCTG	TAG	C	ATCA						

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Section 253																															
(24445)	24445	24450	24460	24470	24480	24490	24500	24510	24520	24530	24541																				
Ad 12 X73487 (22841)	GGAATT	TGAAGG	CTTTC	TTCAAA	TCGA	-----AA	AGCAA	C---CAAA	TGAGC	AAA---AC	GCTGGGCTC	GAGGAC	-----CATG	--ACTACC	TAAAC																
SARS-CoV-2 NC_045512.2 (19500)	TGCTAA	TGA	GTA	CAGAT	TGTATC	TCGATG	CTTA	TAACA	TGATGA	ATCTCAGC	TGGCTTTA	GCTTG	-TGG	GTTTAC	AAACAATT	TGAT-AC	TTA	TAAAC													
Section 254																															
(24542)	24542	24550	24560	24570	24580	24590	24600	24610	24620	24638																					
Ad 12 X73487 (22920)	GAGGGA	GATGTCC	TGTTT	AAACAT	TCTAC	AGCGACA	AAAGCA	CTATCG	TTTCGCG	ACGCCA	TATCTG	ATCG	C-----TCT	TCAATAC	CAGTTT	TCAAT	-TG														
SARS-CoV-2 NC_045512.2 (19595)	TCTGGA	-ACACT-	TTTAC	AAAGAC	TTCAG	AGTTTAG	AA--AAT	CTGCT	TTTAAT	GTTG	TAAAT	TAAGG	GACACTT	TGAT	TGGACA	ACAG	GGTGA	GTAC													
Section 255																															
(24639)	24639	24650	24660	24670	24680	24690	24700	24710	24720	24735																					
Ad 12 X73487 (23011)	CAGAAC	TAT--CT	TGCATC	TACGA	ACGCAAC	CTGTTCT	CCCCAC	GTGTG	CCCC	TAAACG	-GCAAG	CCAA	CGGC	ACATG	CGAGCC	---AAT	CCTCG														
SARS-CoV-2 NC_045512.2 (19688)	CAGTT-TCT	TATCAT	TAA--ATA	CACTG	TTTACACAAA	AGTTGAT	GTTG	TGATG	TAGA	ATTG	TTTG	GAAA	TAAAACA	ACATTA	CC	TGTT	AATGTAGC														
Section 256																															
(24736)	24736	24750	24760	24770	24780	24790	24800	24810	24820	24832																					
Ad 12 X73487 (23107)	CCTTAA	CT-TCTAC	CCAG	TTTTT	TGCAG	TG--CCAG	AAGCA	CTGG	-CAACATAC	CATAT	TTTCT	TTTAAAA	AATC	AAAA	TACCCC	TATCC	TGTCGAGC														
SARS-CoV-2 NC_045512.2 (19782)	ATTTGA	AGCTTT	GGGCTA	AGCGCA	CATTAAA	CCAGTAC	CAGAGG	TGAAA	AATAC	TCAAT	AAAT	TGGGT	TGTG	GACATT	TGCTAA	TACTG	TGATCTGG														
Section 257																															
(24833)	24833	24840	24850	24860	24870	24880	24890	24900	24910	24929																					
Ad 12 X73487 (23195)	TAAACCGC	AGCCG	CGCAG	ATGAGC	TTC	TGCTTTA	AGGGC	TGGC	---GC	TTCC	CATAC	CTGG	ATTGT	GTCT	CCTGG	AAGAGG	TGCCTAA	AATTTT	TTGA	AA											
SARS-CoV-2 NC_045512.2 (19879)	GACTACA	AAAG	AGATG	CTCC	AGCACA	TATATC	TA-CTAT	TGG	TGTTG	TTCTAT	GA	CTG	ACAT--AGC	CAAGAA	ACC	AAC	TGAA	ACG	ATTTG	TGCAC											
Section 258																															
(24930)	24930	24940	24950	24960	24970	24980	24990	25000	25010	25026																					
Ad 12 X73487 (23289)	GGTTT	AGGTC	GGGAT	TGAA	AAACG	AGCAG	CAAA	ATGCT	CTG	CAAAA	AAGAA	-----AATG	AA	CAAA	AAT	CACCA	TGGG	AA	TAGT	GCTCT	AATAGA	ACT	TGGA								
SARS-CoV-2 NC_045512.2 (19973)	CAC	TC	ACTGT	CTTT	TTTG	ATGGT	AGAGT	TGATG	GTCAAG	TA	GA	CTT	ATTTAG	AATG	CCCGT	AAT	GGTGT	TCTT	ATTA	CAGA	---AGG	TAGT	TTAA								
Section 259																															
(25027)	25027	25040	25050	25060	25070	25080	25090	25100	25110	25123																					
Ad 12 X73487 (23381)	AGGT	-G	ACAA	TGC	CCGC	CTG	GCA	GT	TTT	AAA	GCG	CAA	TAT	TG	----	AGGT	AT	TCAC	TT	TG	-CCT	ACCCG	GC	GTAAA	TCTT	CCG	CCAA	AA	GGTA	ATG	
SARS-CoV-2 NC_045512.2 (20067)	AGGT	TT	ACAA	---	CCAT	CTG	TAG	GT	CCC	AAA	---	CAAG	CT	AGT	CTT	AT	TGG	AG	TCAC	ATT	AAT	TGG	GAGAA	GC	GTAAA	AA	CA	AG	TTT	AA	TTATTAT

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											Section 260							
(25124)	25124	25130	25140	25150	25160	25170	25180	25190	25200	25210	25220							
Ad 12 X73487 (23472)	AGCGC	AGTGA	TGAATCAG	CTACTAA	ATTAA	GCGAGCCC	AACCC	ATTGACAA	--AGAT	TGCAAA	CTTGCAAGA	CCCGGAGGC	AACAG	ATGATGG	AAA	GCC		
SARS-CoV-2 NC_045512.2 (20158)	AAGAA	AGT--	TGATGGT	GTTGTCC	AACAA	TTACCTGA	AAC	CTTACTT	ACTT	TACTCAGAG	TAGAA	ATTTA	CAAGATTT	A---	AACCC	AGGAGTCA	AAA	TGG
											Section 261							
(25221)	25221	25230	25240	25250	25260	25270	25280	25290	25300	25317								
Ad 12 X73487 (23567)	G-G	TTGTAAGCGA	C	GAGCA	AATTA	ACTAAG	TGGT	TGGGAAC	AGACA	ATTCCAAC	GAAC	TACAA	CAGC	GGCGTAA	AC-T	CATGATGGCCGC	CGTAC	-TT
SARS-CoV-2 NC_045512.2 (20249)	AAA	TTG---	ATTTCTTAG	AATTA	GCTATG	-GATGA	----	ATTCA	TTGAA	-CGG---	TATAA	ATTAGAA	GGCTATGC	CTTCGAACATAT	CGT	TTTATG		
											Section 262							
(25318)	25318	25330	25340	25350	25360	25370	25380	25390	25400	25414								
Ad 12 X73487 (23661)	GTA	ACTGTGGAAC	TCGAGT	GCATGCAT	-CGTT	TTTTCTC	GGACATCACCACAT	TGCGCA	AAAA	TTG-AGG	----	AATGCTT	CTACTAC	ACTTTCCGCC				
SARS-CoV-2 NC_045512.2 (20333)	GAG	ATTTTAGTCA	TAGTCA	GT-TAGGT	G---	TTTACAT	CTACTGATTGGAC	TAGCTAA	ACGTTT	TAAAGGAATC	ACCTTT	TGAAT-T	AGAAGATTTT					
											Section 263							
(25415)	25415	25420	25430	25440	25450	25460	25470	25480	25490	25500	25511							
Ad 12 X73487 (23752)	ATGG	CTACGTG	CGCCAGCC	TGTAAA	ATTCTAAT	GTGGAG	CTGAGCAA	CTAGTT	TCTTAC	ATGGGCATCT	TG--CATG	AAAAACCG	ATTGGGAC	AG				
SARS-CoV-2 NC_045512.2 (20425)	ATT	CTATGGA	CAGTACAGT	TAAAA	CTATTCTA	TACAG	ATGCGCAA	ACAG	GTTCA	TCTAAGT	GTGTGTG	TTCTGT	TATTGA	TTTTATT	ACTTGAT			
											Section 264							
(25512)	25512	25520	25530	25540	25550	25560	25570	25580	25590	25608								
Ad 12 X73487 (23847)	AACG	TGCTAC	ACTCAACA	CTACG	CGATGA	AGCA-C	GCAGAGAT	TACGTG	CGA-GAC	TGCATTTACCTT	TTCTCT	GTTAC	ATACCT	TGGCAA	ACTGG	GAT		
SARS-CoV-2 NC_045512.2 (20521)	GATT	TTGTTGA	AAATAAA	TCCAA	GATTTAT	CTG-----	TAGTT	CTTAAGGT	TG-----	TCAAA	GTGAC---	TATTGACT	ATACAGAA					
											Section 265							
(25609)	25609	25620	25630	25640	25650	25660	25670	25680	25690	25705								
Ad 12 X73487 (23942)	GGG	TGT	TTGGCAGC	AATGC	TTGG	AAGAAA	AAACCTT	CGA	AACTAA	ACAAAC	-TGT	TAGAC	AGAC	TAA	AATCCCTA	TGG	ACCGGTTTT	TGACGA
SARS-CoV-2 NC_045512.2 (20599)	ATT	TCA	TT-----	TATGCT	TTGG	TGTA--	AAAGATGGC	CATGT-----	AGAAAC	AT--TTT	ACCC	AAAAT	TACAAT--	CTAGTCA	---AGCG	TGGCAA		
											Section 266							
(25706)	25706	25720	25730	25740	25750	25760	25770	25780	25790	25802								
Ad 12 X73487 (24038)	A	CGGACAGTA	GCTGC	AGAGCTA	GCTGA	CAT	AATTTT	CCAGAA	AAGGTT	AAATGA	TAACT	TGCA	AAAC	GGCTTG	CCTG	ACTTTATGAGTC	AAAGT	TATG
SARS-CoV-2 NC_045512.2 (20677)	C	CGG	GT---	GTGCT---	ATGC	CTA-AT--	CTTAC	AAAATGC---	AAAGA	ATGCTATT	TAG	AAAAG	TGTGA	CCTTC	-----A	AAATATG		

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											Section 274						
(26482)	26482	26490	26500	26510	26520	26530	26540	26550	26560	26578							
Ad 12 X73487 (24787)	GCTATTG	CGCAGCAA	CGCTCAAA	GAAA-C	AGCAGCAACGG	CAGGAAAT	CTGGAGG	AGAAATCT	TTGGGAGAGT	CAGGCAGAGG	TCGAGGAC						
SARS-CoV-2 NC_045512.2 (21375)	G-TCTTC	CT---ATT	CTTTATTT	GACATG	AGTAATTTCC	CTTAAAT	TAAAGGG	TACTGC	TGTTATG	TCTTTAA--	AGAAGGTC	AAATCATGAT					
											Section 275						
(26579)	26579	26590	26600	26610	26620	26630	26640	26650	26660	26675							
Ad 12 X73487 (24883)	TTGGAAGAAT	GGGAGGAGG	AGGCGGA	CAGCCTAG	ACGAGGAT	TCCAGAGG	AGGAGGAG	AGGTTCC	AAAGGACG	GAGCG--ACC---	GCCGCCA						
SARS-CoV-2 NC_045512.2 (21466)	ATG-----	ATTTT	ATCTCTT	CTTAGTA	AGGTAGA	-----CTT	ATAATTAG	AGAG	-----A	ACAACAGAG	TTGTTATTTCTAGT	GATG					
											Section 276						
(26676)	26676	26690	26700	26710	26720	26730	26740	26750	26760	26772							
Ad 12 X73487 (24974)	AAACGTCGCT	TTTCAACC	AAAGCCT	CTCCAA	TGAAACC	---CGCT	TGTGAGCA	AAATC---	TCAGAAAG	CCAACCGTAG	ATGGGACACC	ATTGAAC					
SARS-CoV-2 NC_045512.2 (21539)	TTCTTGTTA	ACAAC	CT--AA	AGAAC	AATGTT	TGTTTTTCT	TGTTTATT	GCACCT	AGTCTCT	AGTCAGTGT	--GTTAATCTT	ACA--ACCAGAAC					
											Section 277						
(26773)	26773	26780	26790	26800	26810	26820	26830	26840	26850	26869							
Ad 12 X73487 (25063)	-AGCGC	CGCAA	ACTTG	GTAA	GA--AT	CGCAAG	CAGGCG	CGTCGGGG	CTACTG	CTCAT	TGGCG--GG	CTCACCAA	AGTAAT	ATTGTAGCCTG	CTTTCAG		
SARS-CoV-2 NC_045512.2 (21629)	CAATTAC	CCC---	CTGCAT	ACACT	AATCTTT	CACACG	T-----	GGTGT	TATTACC	CTGAC	AAAGTTTTC	AG-AT	CCT---	CAGTTTT			
											Section 278						
(26870)	26870	26880	26890	26900	26910	26920	26930	26940	26950	26966							
Ad 12 X73487 (25156)	CAC	TGCGGGGG	GAATAT	CTCA	TTTSCAAG	GCGGT	ATTTGCT	TATACCAT	GATGGAG	TGGCGAT	TTCCAA	-GGAATG	TCC	TCCAT	TACTACCGTCA	TCTC	
SARS-CoV-2 NC_045512.2 (21706)	ACATTC	-----	ACTCA	--G	ACTTCTTC	-----	TA-----	-----	CCTTT	CTTTCCAA	TGTTACT	TGGT	CCATG	CTATACATG	TCTC		
											Section 279						
(26967)	26967	26980	26990	27000	27010	27020	27030	27040	27050	27063							
Ad 12 X73487 (25252)	TACAG	CCCC	TT-T	GAAG	AGCTC	GACAAGG	AACCG	GACCTGC	ACAAG	CG-----	GC--	CCACT	AGAAT	CGGC	AACA	GCAGCAACAA	
SARS-CoV-2 NC_045512.2 (21775)	TGGGA	CCAA	TGGT	ACTA	AGAG	-GTTTGAT	AACCG	CTGTCT	ACCA	TTTAATG	ATGGT	GTTTATTTT	GC	TTCCACT	GAGAG	AGTCTAACA	TAAATAAAG
											Section 280						
(27064)	27064	27070	27080	27090	27100	27110	27120	27130	27140	27150	27160						
Ad 12 X73487 (25333)	GGAAAG	TCC	TGAG	----G	CGCGCG	AGTTAA	GAAAG	GCATT	TTTCCC	ACTTTAT	ATGCTAT	TTTT	C-AGC	AGAGTC	GAGGTCAA	GAAACA	-CGAACTG
SARS-CoV-2 NC_045512.2 (21870)	GCTGGA	TTTT	TGTG	TACTA	CTT--T	AGATT	TCGAA	GACCA	GT---CCC	TACTTAT	TGTTAAT	AACGCT	ACTAAT	GTTGTTAT	TAAAGT	CTGTGAATTT	

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		Section 281																																																					
	(27161)	27161	27170	27180	27190	27200	27210	27220	27230	27240	27257																																												
Ad 12 X73487	(25424)	AAAT	TAAAAA	ACC	GT	TCC	CT	GC	TT	CACT	TACCCGCAGC	TGT	CT	CT	AC	CT	CA	AAA	GCG	AAG	ATC	AGTTG	CA	ACGCACCT	TGCAG	G	GACG	CAGA	AGCT	C																									
SARS-CoV-2 NC_045512.2	(21962)	CAAT	TTT	-GT	AAT	GA	TCC	AT	-----	TTTTG	G--G	TGT	TT	AT	TAC	CAC	AAA	AAC	AA	CAA	AGTTG	GA	----	TG	GAAAGT	G	AGTT	CAGA	GTT	TA																									
		Section 282																																																					
	(27258)	27258	27270	27280	27290	27300	27310	27320	27330	27340	27354																																												
Ad 12 X73487	(25521)	TG	TT	CA	AA	TAA	AT	ACT	GC	TCC	CT	CT	CG	CT	TAA	AGA	GT	AAA	-----	AAA	AG	CC	CG	CG	C	GCG	ACT	T--TC	A	-----	AC	AGG	CGG	G	AAA																				
SARS-CoV-2 NC_045512.2	(22042)	T	-T	CT	AG	T	G	CGA	A	TA	AT	T	-G	CA	CT	TT	-T	GA	A	TAT	GT	CT	CT	CAG	CT	TTTT	CTT	AT	GGA	CC	TT	GAA	G	GAA	AC	AGG	GT	A	ATTT	CAA	AA	A	TCT	TA	GGG	AA									
		Section 283																																																					
	(27355)	27355	27360	27370	27380	27390	27400	27410	27420	27430	27440	27451																																											
Ad 12 X73487	(25596)	G---	TG	AC	GT	CA	-CA	ACAA	GAT	G	TA	----	AA	GAT	AT	TCC	CAC	--GC	CT	TA	CA	TG	TGG	AG	CT	TT	CA	ACC	C	CAA	AT	GGG	A	CT	GGC	GG	CCG	GCG	CGGC																
SARS-CoV-2 NC_045512.2	(22136)	TTT	G	TT	-T	A	GA	A	TATT	GAT	G	T	TA	TTTT	AA	AAT	AT	T	C	TA	AG	CA	C	AC	G	CT	AT	TAA	--TT	-T	AG	TG	C	GT	G	AT	C	-TC	CCT	CA	GG	GTTTT	CGGC												
		Section 284																																																					
	(27452)	27452	27460	27470	27480	27490	27500	27510	27520	27530	27548																																												
Ad 12 X73487	(25683)	T	CA	AG	A	C--	TAT	TTC	TAG	CAA	--AAT	GAA	ATT	GG	TTAA	GCG	CGG	ACCC	CA	TGA	TTT	C	AG	GG	TGA	AT	GGG	GT	AC	GAG	CCCC	GG	C	GTA	AC	CAA	AT	ACT																	
SARS-CoV-2 NC_045512.2	(22228)	TTT	AGA	AC	CA	T	TGG	TAG	ATTT	GCC	AAT	AGGA	TTAA	CAT	C	ACT	AGG	TTT	CA	AAC	TTT	ACT	T	T	G	CTT	T	T	A	CATA	GA	AG	T	ATTT	T	GAC	T	CT	CT	G	GTG	ATT	CT												
		Section 285																																																					
	(27549)	27549	27560	27570	27580	27590	27600	27610	27620	27630	27645																																												
Ad 12 X73487	(25776)	G	CT	AG	A	CAA	G	CCG	CT	CT	CACC	GCT	ACA	C	ACG	T	AAT	CA	ACT	T	ACC	CT	CCT	CT	TGG	C	AG	CT	T	GCCC	T	GAT	AT	AT	CAG	G	AAAA	AT	CCCC	T	CCT	ACC													
SARS-CoV-2 NC_045512.2	(22325)	T	CT	TC	A	GGTT	G	GAC	AG	CT	GG	-T	GCT	G	CA	G	CTT	AT	TAT	GT	GGG	T	AT	CT	T	C	AA	CT	AGG	A	CTTT	T	CT	AT	T	AA	AT	AT	---	A	---	AT	G	AAAA	T	GGA	ACC								
		Section 286																																																					
	(27646)	27646	27660	27670	27680	27690	27700	27710	27720	27730	27742																																												
Ad 12 X73487	(25873)	A	CT	GT	A	CT	T	TTG	CC	T	CG	C	GAC	G	CC	G	AG	CC	G	AAG	T	CC	A	T	A	TG	AC	TAA	G	CT	--	G	GGG	CA	C	AG	CT	T	G	CG	GG	CGG	----	TG	CAC	GT	C	A	G	T	T	C	AG	G	T
SARS-CoV-2 NC_045512.2	(22415)	A	T	TAC	AGA	T	G	CT	-G	T	-AG	ACT	G	TG	C	-----	ACT	TG	AC	CCT	CT	CT	CAG	AAA	CA	A	AG	TG	T	AC	G	TT	GAA	AT	CC	T	T	CAC	T	G	T	AG	AAA	---	A	AG									
		Section 287																																																					
	(27743)	27743	27750	27760	27770	27780	27790	27800	27810	27820	27839																																												
Ad 12 X73487	(25964)	A	TAA	AGG	T	CG	CA	CT	GAG	CC	CT	AT	CCG	T	CT	CAG	CT	A	TAA	AA	AG	AGT	AC	T	CA	T	CAG	-	AGG	AA	G	TA	T	T	CAG	CT	GA	AC	GA	C	GA	-G	T	ACA	T	CG	CCA								
SARS-CoV-2 NC_045512.2	(22495)	A	---	AT	C	TAT	CA	A	ACT	-----	T	-----	CT	A	ACT	T	TAG	AG	-T	CCA	AC	CAA	-	CAG	AA	T	CT	AT	T	G	T	TA	-----	GA	T	T	C	T	AA	T	AT	ACA	A	ACT	-T										

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		Section 295																																																		
	(28519)	28519	28530	28540	28550	28560	28570	28580	28590	28600	28615																																									
Ad 12 X73487	(26702)	TCCC	TCA	TAT	TCACT	CTTC	GC	TG	CAG	TTT	TTTTTC	CACA	CAT	CT	CACCT	GGACC	TT	TAAC	GG	AAA	ACACG	T	TAC	CAAT	TAC	CAGAT	AT	AA	AGT	TTTAA	ACT																					
SARS-CoV-2 NC_045512.2	(23178)	----	TCA	AT	TTCAA	CTTC	AA	TG	G--	TTT	AACAGG	CACA	GG	TGT	TCTT	ACTGAG	T	TAAC	AA	AAA	GTT--	T	CTG	CCT	TTC	--	CA	AA	ATT	TG-GC	AGA																					
		Section 296																																																		
	(28616)	28616	28630	28640	28650	28660	28670	28680	28690	28700	28712																																									
Ad 12 X73487	(26799)	ACA	CAAA	GAAA	ACA	TC	ACT	CT	ATT	T	-CAACCT	AT	TA	AC	CT	GGGA	TA	-----	C	TAC	CGC	TG	CTC	AG	CTCCAC	CCT	GT	TACGCA	AG	CATT	TTTT	GT	TG																			
SARS-CoV-2 NC_045512.2	(23264)	GA-	CATT	G	CTG	ACA	CT	ACT	GATGC	T	GTCCGTG	AT	CC	AC	AGACAC	T	TGAGATT	CT	T	GA	C	ATT	TAC	--	AC	CATGTT	C	TTT	TGGTGGT	G	TCAG	T	TTT	TAA																		
		Section 297																																																		
	(28713)	28713	28720	28730	28740	28750	28760	28770	28780	28790	28809																																									
Ad 12 X73487	(26888)	CT	CCAG	TT	ATTGAC	AA	ACGCC	CT	GCTC	G	ACA	CA	G	CT	GTCTGT	CAC	T	GAGCAC	ATC	ACC	GAG	G	CAGTT	TCTC	CTTCT	AA	AGT	AC	CAGAGG	AAATTG	T																					
SARS-CoV-2 NC_045512.2	(23358)	C	ACCAG	GA	AC---	AA	TACTT	CT	A--	AC--	CAG--	GT	TGCTGT	TC-	TTT---	ATC	-AG	GAT	G	TTAAC	T	GCA	C----	AG	AGT	C	C	CTGTT---	GC	T																						
		Section 298																																																		
	(28810)	28810	28820	28830	28840	28850	28860	28870	28880	28890	28906																																									
Ad 12 X73487	(26985)	G	T	A	CT	TTT	CA	AA	C	TTT	TAC	A	-AA	C	ACTT	AG	-	TTT	TAA	ATT	GT	-----	T	C	T	G	T	C	T	AAC	TC	CTTA	ATT	T	CAT	GG	T	TGC	TAA	CAGCTC	T	CT--	GTGC									
SARS-CoV-2 NC_045512.2	(23432)	A	TT	CAT	TGCAG	A	T	CAACTT	A	CTC	T	ACTT	G	CG	T	G	T	TTT	ATT	CT	TACAGG	T	CT	AA	T	GT	TTTT	TC	AAAC	AC	G	TGCAG	GG	CT	G	TT	TAA	-----	TAGGG	G	CTG											
		Section 299																																																		
	(28907)	28907	28920	28930	28940	28950	28960	28970	28980	28990	29003																																									
Ad 12 X73487	(27073)	AAA	ACT	TT	T	C	T	AC	CAAGGAA	AACT	TTT	T	G	T	ATTC	TG	CT	AA	CT	CA	CATTG	TG	TAA	C	CAG	AGC	ACC	CCT	T	CCC	ACC	TTA	CTCT	AT	TGCC	AC	CTT	TT	-GTT													
SARS-CoV-2 NC_045512.2	(23523)	AA	CA-	T	G	T	CA	AC	-----	AACT	CA	TAT	TGA-G	TG	TG	AC	ATA	C	CCATTG	GTG--	CAG	G	TAT	ATG	C	G	T---	A	-G	TTA	TCAG	ACT	CAG	AC	TAAT	TT	CTCC															
		Section 300																																																		
	(29004)	29004	29010	29020	29030	29040	29050	29060	29070	29080	29090	29100																																								
Ad 12 X73487	(27169)	G	C	----	G	T	C	----	G	T	A	CT	TTT	T	G	C	AT	AGGAGCTGC	A	CGTA	CTA	GC	CC	TGTCA	ACA	G	CATTG	GA	ATTT	AACT	T	ACTG	----	T	C	C	C	A	AGT													
SARS-CoV-2 NC_045512.2	(23605)	T	C	GGCGG	G	CA	G	TAGT	G	T	AG	CT	AG	T	CA	AT	CCATC	----	A	TTGC	CTA	CA	G	TA	TGTCA	CTT	G	TGCAG	G	----	AAAA	T	CAG	TTGCT	T	A	C	T	A	A	AC											
		Section 301																																																		
	(29101)	29101	29110	29120	29130	29140	29150	29160	29170	29180	29197																																									
Ad 12 X73487	(27252)	G	T	C	G	C	C	T	T	T	G	T	G--	AT	CAA	TAC	T	G	A	T	ATT	TA-	G	ACTAT	A	ATCCCT	T	G	CT	TG	C	TTAC	GG	CG	T	CT	CG	AG	CTC	T	T	ATT	T	TTT	ATT	C----	C	T	G	ATTT		
SARS-CoV-2 NC_045512.2	(23693)	T	C	T	A	T	T	G	C	C	A	T	A	C	C	AA	ATT	T	T	A	C	T	A	T	T	AGT	G	T	T	ACCA	CAGAA	AT	T	CT	-AC	CAGT	G	T	C	T	A	T	G	CA	AGACAT	C	AG	TAG	ATT	GTACAA	TG	TACAT

SARS-CoV-2 & Ad12.apr

											Section 302
(29198)	29198	29210	29220	29230	29240	29250	29260	29270	29280	29294	
Ad 12 X73487 (27342)	TAACTTGTT-TCTAGTGCAACATTTGTATTCAT-AC	TAA	CAATGCTTTC	CATTTTT	C----	TTTTATT	TCTCTTT	CTTTACCTT	CTGGCT	TGTATG	
SARS-CoV-2 NC_045512.2 (23788)	TGTGGTGATTCAACT--GAATGCAGCAATCTTTTGTTG	CAAT--ATGG	CAGTTTT	TGTAC-ACA	ATTAAA	CCGTGCTTTA	---A	CTGGAA	TAGCTG		
											Section 303
(29295)	29295	29300	29310	29320	29330	29340	29350	29360	29370	29391	
Ad 12 X73487 (27433)	CTCAAACAGCCGAAAACACACTAAAGTCGTGTGG	AAGCTGG-C	ATAATGTAA	CCCT--T	CC	CCACCTTTC	TGGTTCAC-ACCA	AACTGGC	CAT		
SARS-CoV-2 NC_045512.2 (23877)	TGTAAACAAGACAAAAACA	CCAAGAGT	TTTGTGCAC	AAGTCAAA-	CAAA	TTTACAAAACACCA	CCAATTAAAGA	TTT	TGGTGGTTTT	CAATTTTT	
											Section 304
(29392)	29392	29400	29410	29420	29430	29440	29450	29460	29470	29488	
Ad 12 X73487 (27525)	GTTACTTGGCTAGTAGAGACATCAGATTATGGTT	CAGCTTC	TC	CAGACA	ACTT	CATT	TTCAGT	G----	GACAAA	ACTATG	
SARS-CoV-2 NC_045512.2 (23973)	AAATA	TTAC	C----	AGATC	CATCA--AA	CCAAG	CAGAGG	TCAT-----	TATT	GAAGATCTACTTTTC	
											Section 305
(29489)	29489	29500	29510	29520	29530	29540	29550	29560	29570	29585	
Ad 12 X73487 (27618)	ACC	ATGGTGTGGCCTTATT	ACAATTTACATTTTAACTGT	TGAA--A	ATTA-TG	ACCTTAATCT	---G	TTT	TGGCTTA	-----	
SARS-CoV-2 NC_045512.2 (24050)	G--	ATGC	TGGCTTCATCAAA	ACAATATGGTG-AT	TGCTGTGTGATATTGC	TGCTAGAG	ACTCAT-TT	TGTGCACAA	AAGTTT	AACG	
											Section 306
(29586)	29586	29600	29610	29620	29630	29640	29650	29660	29670	29682	
Ad 12 X73487 (27703)	CTA	TTTACAA	CGTTAAAAA-T	CA	GTC	AATGCTT-CT	GAAACA	NATATTTACT	ATGA	TTTA	
SARS-CoV-2 NC_045512.2 (24139)	TGT	TTTGC	CACTTTGCTCAC	AGATGA	AATGATTGCT	CAATAC	ACT-T	CTGC	ACTGTT--	AGC-GG	
											Section 307
(29683)	29683	29690	29700	29710	29720	29730	29740	29750	29760	29779	
Ad 12 X73487 (27798)	ACTTCAAAGTACCTTA--CAAACGATTAT-TGT-CA	CATTA	CAATTA	ACTTGC	ACTAACTC	TGATTACC	CAAT	AAGGTTGTG----	TTTA-----	A	
SARS-CoV-2 NC_045512.2 (24231)	CAG--GTGC	TGCA	TTACAAAT	ACATTGCTAT	GC	CAATGGCTTA	TAGGTTT	ATGGTAT	TGGAGTTA	CAC	
											Section 308
(29780)	29780	29790	29800	29810	29820	29830	29840	29850	29860	29876	
Ad 12 X73487 (27881)	T--	AATGT	CAGT	CGATGGT	ACTAC	GATAC	GGTA-A	GGG	CA	GCC----	
SARS-CoV-2 NC_045512.2 (24326)	TG	AT	TGC	CAAC	CAATTTA	ATAGT	GCTATT	GG	CAAA	ATTCA	

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																	Section 309															
(29877)	29877	29890	29900	29910	29920	29930	29940	29950	29960	29973																						
Ad 12 X73487 (27967)	TTA	CTAAAAG	-----	CTTTAA	TCA	CACTT	ACCCTTTT	AA	TGAGCTC	TGTGA	TTATCC	CACAT	CCCA	ATCTCAAC	ACAGTT	TAA	CACA	TACA	G-TAA													
SARS-CoV-2 NC_045512.2 (24419)	AAC	CAAAAT	GCACAAG	CTTTAA	CAC	GCTT	GTTAAACA	ACT	TAGCTC	CAATT	TTGGTG	CAAT	TTCA	AGTGT	TTTAA	TGAT	CCTT	TCAC	GCTCTT													
																	Section 310															
(29974)	29974	29980	29990	30000	30010	30020	30030	30040	30050	30060	30070																					
Ad 12 X73487 (28057)	G	CAC	AGTAATC	TTTT	TTAG	GAAT	AA	TG	GCT	--	TCAG	CAT	TTTGA	-	TTATTA	TAGC	AG	CC	TTT	--	ATT	TATC	TG	TGCTGG	CA	TAGAAAA	TCT	TT	GTGT			
SARS-CoV-2 NC_045512.2 (24515)	G	ACA	AAGTTGAGGC	TGA	AG	TGC	AAAT	TG	AT	TAGGTT	G	-	AT	CACAGG	CAGACT	TCAA	AG	TT	TGCAG	ACA	TAT	G	TG	ACTCAA	CAA	----	TAA	TT	AGAG			
																	Section 311															
(30071)	30071	30080	30090	30100	30110	30120	30130	30140	30150	30167																						
Ad 12 X73487 (28149)	G	TTTCT	AAAA	CAGAA	CC	TCT	--	TATG	CCGAT	TCCT	TACTAG	TT	TC	TTTT	TTCT	TAC	AGTATGGT	-----	GACGGT	TCTTC	TC	ATC	TTTT	TATGC								
SARS-CoV-2 NC_045512.2 (24606)	C	TGCAG	AAAT	CAGA	GCT	TCT	GC	TAAT	CTTGCT	TGCT	ACTAA	AAAT	TC	AGAG	TGTG	TAC	TTGGACA	ATCA	AAAA	GAG	-----	TGAT	TT	TTTGT	GGAA							
																	Section 312															
(30168)	30168	30180	30190	30200	30210	30220	30230	30240	30250	30264																						
Ad 12 X73487 (28237)	CT	G	CAG	TCAT	TT	---	TTTC	-	TTCT	TC	G	-----	ACT	TTTGCC	G	CAGT	CAGTGA	CTTG	AT	CCC	GAG	TGT	TTAG	CC	CC	CTT	TGCGGTGT	AC	CT	GATT		
SARS-CoV-2 NC_045512.2 (24696)	AG	GG	CTA	TCAT	CT	TTATG	TC	CT	TC	CT	CAGTCAGC	AC	CT	CA	--	TGGT	GT	AGTCTT	CT	TGC	AT	GT	GAC	TTAT	TGTC	CC	TG	CACAAG	AAAAAG	AACT	TCAC	
																	Section 313															
(30265)	30265	30270	30280	30290	30300	30310	30320	30330	30340	30350	30361																					
Ad 12 X73487 (28324)	TT	CACAT	TTG	TGAC	TGCT	TAC	CTGCGT	CTGC	-	AGTA	TTA	TTA	CTCT	GCT	AA	TCAC	-	CTC	-	GCT	CAAT	TTTT	TG	ATTAC	TACTAC	GT	GAG	AA	TTGTTT			
SARS-CoV-2 NC_045512.2 (24790)	AA	CT	-	GC	TCC	TGC	CATT	TGT	CATGA	TGGAAA	AG	CACAC	TTT	CTC	GT	GA	AGGTGT	CT	TT	GTT	TCAA	AT	TGGCACA	A	---	C	-	ACTG	-	GTTT	GT	AACACAA
																	Section 314															
(30362)	30362	30370	30380	30390	30400	30410	30420	30430	30440	30458																						
Ad 12 X73487 (28418)	A	CCGCAGACACCACC	CC	CGTT	AC	CAAA	AG	C	----	CTCA	AA	TT	GC	GC	TCT	TT	TGCAG	CT	CCA	ACCA	TG	AA	AC	AG	CAT	TAGT	TCTTTT	CTTTAT	GT			
SARS-CoV-2 NC_045512.2 (24881)	A	GGGAATTTTTATGAA	CC	ACAA	AT	CA	TT	AC	TACAGA	CAAC	ACAT	TT	GT	TG	TCT	GG	TA	-	ACT	GTG	ATGT	TGT	AA	-	TAGGA	ATTGT	CAACAA	CAC	-	AGT		
																	Section 315															
(30459)	30459	30470	30480	30490	30500	30510	30520	30530	30540	30555																						
Ad 12 X73487 (28510)	T	AAT	CCCAG	TTTG	GGCTAG	TT	CT	---	TCA	ACT	A	CAT	A	AACCAT	G	-----	GAT	TTTT	TT	AGA	TTGTTAT	AC	-	TAAA	G	AAA	-	CAACTA				
SARS-CoV-2 NC_045512.2 (24973)	T	TAT	GATCC	TTTG	CAACCTGAA	TT	AGAC	TCA	TTCA	AGGA	AG	---	AG	TTAGATA	AAATATTTT	AAGAAT	CA	TACAT	CACC	AGAT	GT	GA	TTT	AGGTGAC								

SARS-CoV-2 & Ad12.apr

											Section 316																			
(30556)	30556	30570	30580	30590	30600	30610	30620	30630	30640	30652																				
Ad 12 X73487 (28589)	--CATA	GGCTGGGT	TTATGGA	ATTATG	TCTGGCTT	AGTATTTG	TCTGTAG	TTTCTTT	ACA	ACTGTATG	CGCGCCTT	AATTT	TAGT	TGGA	AT															
SARS-CoV-2 NC_045512.2 (25067)	ATCTCT	GGCATTAA	TGCTTC	AGTTG	TAAACATTCA	AAAAGAAAT	TGACCG	CTCAAT	GAGGTT	GC	AA-GAAT	--TTAAAT	TGAAT	CTCTCA	TGATC															
											Section 317																			
(30653)	30653	30660	30670	30680	30690	30700	30710	30720	30730	30749																				
Ad 12 X73487 (28683)	AAGTAT	AC--TG--	ATGATCTTC	CCGAATAT	CCAAACCC	CCAGGAT	GATTT	-AC----	CCC	TAAATAT	TGTAT	TTT	---	CCAG	-----AGCC----															
SARS-CoV-2 NC_045512.2 (25161)	TCCA	AGAACT	TGGAAG	TATGAG	CAGTATAT	AA	-TGG	CCATG	GTACATT	TGGCTAGGTTT	TATAGC	TGGCTTGAT	TGTC	CATAGTAATG	GTGACAA															
											Section 318																			
(30750)	30750	30760	30770	30780	30790	30800	30810	30820	30830	30846																				
Ad 12 X73487 (28757)	C-CC	GGCTCCTCCT	TCTGT	TGTTAG	CTATTT	TAA	-GTTC	ACCG	--TGAAGAT	GATT	--GAA	-CCT	GATCTAG	AAATTGATG	GAAGAATC	ACCGAAC														
SARS-CoV-2 NC_045512.2 (25257)	TTAT	GCTTT	---GC	TGTA	TGACC	AGTTGC	TGTA	GTTG	TC	CAAG	GGCTGTTG	TTC	TTGT	GATCCT	--GCTGC	AAATTGAT	GAAGA	-CG	ACT---	C										
											Section 319																			
(30847)	30847	30860	30870	30880	30890	30900	30910	30920	30930	30943																				
Ad 12 X73487 (28847)	A	GAGGCT	CC	TCAC	TGATCGCGCT	AGG	CAG	GCC-A	ACA	GGATCA	AAAA	ATAA	AGAG	TTAATT	GATTTT	CAAA	-ACCG	TGCAT	CAGTGTAA	AAAA	GGA									
SARS-CoV-2 NC_045512.2 (25345)	T	GAG---	CC	AGT-----	GCTCAA	AGG	AGT	C	AAATT	ACA	TTACAC	AT	AAACG	AA	CTTA	TGGATT	TGTTTA	TGA	AATCTT	CAC-----	AA	TT	GGA							
											Section 320																			
(30944)	30944	30950	30960	30970	30980	30990	31000	31010	31020	31040																				
Ad 12 X73487 (28942)	CT	TTTTTGCC	TG	GTAA	AA	CAAG	CTA	CCCTTC	GCT-ATG	AATCTTT	ACC	AGG	CAAAGA	ACAT	CA	ACTG	TGCTACACG	CTGCC	CACT	CAGC	--GAC	AAA								
SARS-CoV-2 NC_045512.2 (25426)	AC	TGTA	ACTTT	TGA	AGC	AA	G--	GTGA	AATCAA	G	GATGCT	ACTC	CTT	CAGAT	-TTT	GTT	CGCG	CT	ACTG	CAACGATAC	CGATA	CAAG	CCT	CACTC	CCTT					
											Section 321																			
(31041)	31041	31050	31060	31070	31080	31090	31100	31110	31120	31137																				
Ad 12 X73487 (29036)	C	TTTACTGCA	AT	GTG	GGCTCG	GTAC	CTATT	AAA	GTGT	CC	CA	ACAA	GC	AG-G	AGAA	CAAG	AA	GGCTC	TATTC	GGTGC	CTATGTGA	TA	ACC	CT	GAAT					
SARS-CoV-2 NC_045512.2 (25520)	T	CGGATGGCTT	ATT	GTG	GGCGTT	G	ACTT	CTT	GCTGT	TTT	CA	GAGC	GC	TTCC	AAAA	TCAT	AA	CCCTC	CA	AAA	GAGAT	TGGCAA	--CTA	G	CACT	CTCC				
											Section 322																			
(31138)	31138	31150	31160	31170	31180	31190	31200	31210	31220	31234																				
Ad 12 X73487 (29132)	G	TTT--	GTAC	ACTTT	AA	TAAA	AAC--	A	CTGT	GCGGT	TT	AAG	AA	ATC	TTT	TAC	C--	AATGA	AT	TAAATAAAT	TA----	CTT	ACCG	GA	AA	CT	GAAAA	TA		
SARS-CoV-2 NC_045512.2 (25615)	A	AGGGT	GT	T	CACTTT	GT	T	GC	AAC	TTG	CTGT	TGTTG	TT	TGT	AA	CAG	TTT	ACT	CA---	ACC	TTTT	GCTCG	T	TGCTG	CTGG	CCTT	GA	GC	CCCTTT	TC

SARS-CoV-2 & Ad12.apr

Figure 1. SARS-CoV-2 NC_045512.2 (25709) (31235) 31235 31240 31250 31260 31270 31280 31290 31300 31310 31320 31331

Ad 12 X73487 (29220) CATCATGGTCTCCGTGTACTCTTATAAAAA---TTCCCTCTTCCCAACTGTCTAAACCTGACAGACTTGC-AAAAGAGCAAA---CTTTCCTCCAAATC

SARS-CoV-2 NC_045512.2 (25709) TCTATC-TTATATGCTTAGTCTACTTCTTGCAGAGTATAAACCTTGTAGAATAAATAATGAGGCTTTGCTTTTGCTGAAAATGCGTTTCCAAAAACC

Section 324

(31332) 31332 31340 31350 31360 31370 31380 31390 31400 31410 31428

Ad 12 X73487 (29309) TTA-AATGGGAAGG-TCAGATTCTTTC---TTCC---CAATCCCTACCCA---CATCTT-CATCTT-TTCAGATGAAGCGCA-GCAGAACCAGTA

SARS-CoV-2 NC_045512.2 (25805) CATTAACTTTATGATGCAACTATTCTTCTTTGCTGGCATACCTAATTGTTACGACTATGTATACCTTACAAAGTAG-TGTAACTTCTTCAATTGTC-ATT

Section 325

(31429) 31429 31440 31450 31460 31470 31480 31490 31500 31510 31525

Ad 12 X73487 (29391) TGCAGAGAAACAGAGAAATGATG-ACCTTCAAC---CCCGTTTACCTTTTGTACCC--ATTGACATCATCAGACGTACCTTTTGTTCACCCCC

SARS-CoV-2 NC_045512.2 (25900) ACTTCAGGTGATGACAAAGTCTATTTCTGAACATGACTACCAGATTGGTGGTTATACTGAAAAATGGGAATC-TGGAGTAAAGACTGTGT

Section 326

(31526) 31526 31540 31550 31560 31570 31580 31590 31600 31610 31622

Ad 12 X73487 (29481) TTTACTTCTTCCAATGGTCTTCAAGAAAACCAACCAGGTGTATTAGCACTTAATTACAAAGACCCCATTTGTAACTGAAATGGAACCTT-TACAC-

SARS-CoV-2 NC_045512.2 (25996) GTATTACACAGT-TACTTCACCTTCAAGACTATT-ACCAGGTGTACTCAACTCA-ATTGAGTACAGACACTTGTGTG-TGAAATGTTACCTTCTTCACTC

Section 327

(31623) 31623 31630 31640 31650 31660 31670 31680 31690 31700 31719

Ad 12 X73487 (29576) -TCAAAGCTAGGGGACGGAATAAACTTATATGCCAA--GGTCAACTTACAGCTAGTAATAATATCAATG--TTTGGAG-GCCCTTACCAAACCTTC

SARS-CoV-2 NC_045512.2 (26089) TACAAATAAATTGTTGATGAGCCTGAAGAACATGTCCAAATTCACACAAATCGACGGTTCATCCGGAGTTGTTAATCCAGTAATGGAACCAATTTATG

Section 328

(31720) 31720 31730 31740 31750 31760 31770 31780 31790 31800 31816

Ad 12 X73487 (29667) A--CAAGGTCTTAAACTTTCTTGGAGCGCCCCCTTAGCAGTAAAGGCTAGTGCCCTCACACTTAACACAGAAGCGCCCTTAACCACAACGGATGAAA

SARS-CoV-2 NC_045512.2 (26186) ATGAACCGACGACGACTACTAGCTGTC---CTTTGTAGACAAAGCTGATG-----AGTACGAACCTTATGTACTCATTCGTTTCGGAAGAGACAT

Section 329

(31817) 31817 31830 31840 31850 31860 31870 31880 31890 31900 31913

Ad 12 X73487 (29762) GCTTAGCCTT-AAATAACGCCCTTCCATTACAGTAGAGTCTTCGC-GTTTGGGCTTGGCCACCAT--AGCCCTCTAAGCTTAGATG---GAGG

SARS-CoV-2 NC_045512.2 (26272) GGTACGTTAATAGTTAATAGCGTACTTCTTTTCTTGCTTGTGTTATCTTGTCTAGTTACACTAGCCATCCTTACTGCGCTTCGATGTGTGCGT

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											Section 330
(31914)	31914	31920	31930	31940	31950	31960	31970	31980	31990	32000	32010
Ad 12 X73487 (29850)	TGGAAAC	CTAGG	TTTAA	ATCTT	TCTGCT	CCCCCTGG	---AG	GGTT	AGTAACAACAAT	TTGCAT	TCTC
SARS-CoV-2 NC_045512.2 (26369)	ACTGCTG	CAATA	TTGTT	AACGT	GAGTCT	TGTAAACCTT	CTTT	TACGTTTACTC	TCTGT	TAA	AAATCTG
											Section 331
(32011)	32011	32020	32030	32040	32050	32060	32070	32080	32090	32107	
Ad 12 X73487 (29942)	GCGGT	TGCC	CTATCTG	TGCTAC	TGCAG	-ACCCCA	TAA-G	TGTT	CGCAAC	AACGC	TCTTA
SARS-CoV-2 NC_045512.2 (26466)	GGTCT	TAAAC	--GAAC	TAAAT	TATATT	---AGT	TTTTC	TGTT	TGGAAC	TTTAA	TTT
											Section 332
(32108)	32108	32120	32130	32140	32150	32160	32170	32180	32190	32204	
Ad 12 X73487 (30037)	GCGTT	GGGA	ATAAG	TGCTAC	CTAG	TCCAT	TACAG	TAA-T	AAACGG	TTCCT	TAG
SARS-CoV-2 NC_045512.2 (26553)	GAAGA	GCTT	AAAA	-GCTC	CTT	-GAACA	ATGGA	ACCTAG	TAA	TAGGT	TTCCT
											Section 333
(32205)	32205	32210	32220	32230	32240	32250	32260	32270	32280	32290	32301
Ad 12 X73487 (30128)	CTT	TAA	GTCT	TG---	TCTGTT	GCC	AAT-CC	TCTGA	CTATTT	GACA-	AGACA
SARS-CoV-2 NC_045512.2 (26648)	GAA	TAG	GT	TTTGT	TATATA	ATTAA	GTAA	TTTTC	CTCT	GGGT	GT
											Section 334
(32302)	32302	32310	32320	32330	32340	32350	32360	32370	32380	32398	
Ad 12 X73487 (30211)	G--	GGT	CTCA	ATTAG	TAA	CAAGAA	TAGG	GATG	TTTAA	CA	TT
SARS-CoV-2 NC_045512.2 (26744)	TTG	GAT	---C	ACCG	GTGGA	ATTGC	TATC	CAAT	GCT	TGTC	TT
											Section 335
(32399)	32399	32410	32420	32430	32440	32450	32460	32470	32480	32495	
Ad 12 X73487 (30297)	TTCTG	GCG	GTA	GAATAA	TTTTAG	ATGT	TAA-TT	ATCC	CTTT	GATG	CGAG
SARS-CoV-2 NC_045512.2 (26829)	TTTGC	GCG	TAC	GCG--T	TCCAT	GTG	TCA	ATCC	A---	GAAAC	TAA
											Section 336
(32496)	32496	32510	32520	32530	32540	32550	32560	32570	32580	32592	
Ad 12 X73487 (30393)	TACAAA	C-T	GGA	CTTAA	CACT	GATATT	AGTA	-----	CCGAA	-----	AAAGG
SARS-CoV-2 NC_045512.2 (26916)	CCGCTT	CTA	GAA	GTG	AAC	TCGT	TAT	CGG	AG	CTGT	GAT

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												Section 337																					
(32593)	32593	32600	32610	32620	32630	32640	32650	32660	32670	32689																							
Ad 12 X73487 (30472)	--GGTCAGGGGC	TTACATTTAA	TAATGG-CAAC	--TTAGGGT	---AAGTTGGGAGCT	GGA	CTTA-TTTTGA	-TCAAACAATAACA	TTGC	CTTA																							
SARS-CoV-2 NC_045512.2 (27013)	TGCC	TAAAGAAA	TCAC	TGTTGC	TACATCA	GAAACGC	TTTCTTA	TACAA	TTGGGAGCT	TCG	CAGCGTGTAGCAGGT--GAC	TCAGGTTTGC	TGCA																				
												Section 338																					
(32690)	32690	32700	32710	32720	32730	32740	32750	32760	32770	32786																							
Ad 12 X73487 (30559)	GG	CAGCAGCAG	CAACACTCCAT	ACGACCC	TC--TGACAC	TGTG	GACAACTCC	TGACCCACCA	CAAAC	TGCAGCCTC	ATACAAGA	GCTAG	GATGCAA																				
SARS-CoV-2 NC_045512.2 (27108)	TA	CAGTC	GCTA	CAGGAT	TGGCA	ACT--ATAAAT	TAAAC	-ACAGAC	CAT	TCC--AG--TAG	C---AGTGACAAT--AT	TGCTTT	GCTTGTACAGTA																				
												Section 339																					
(32787)	32787	32800	32810	32820	32830	32840	32850	32860	32870	32883																							
Ad 12 X73487 (30654)	ACTCAC	--CCTGTG	CTTAA	CAAAAAACG	GA---TC---	TATGT	--TAATGG	CAT-TG	TAA	GT	TAGTGG	---TGTTAA	GGT	TAATCTCCTA	AAT																		
SARS-CoV-2 NC_045512.2 (27191)	AG	TGACAA	CAGA	TGTTTCA	TCTC--GTT	GACTT	TCAGGT	TACTATAGC	AGAGAT	AT	TACTAA	TATTATGAG	GAC	TTTTAAAGT	T	TCCA	TTTGG	AAT															
												Section 340																					
(32884)	32884	32890	32900	32910	32920	32930	32940	32950	32960	32970	32980																						
Ad 12 X73487 (30736)	ATCCAA	-AGTAC	TACT	ACCA	CTGT	AGGAGTGCA	TTTAGT	GTTT	TGATGA	AACAGGGAA	GAT	TAA-T	TCACA	TCAA	CCCCTACTG	CCCT	G	GTT	CCCCAA	G													
SARS-CoV-2 NC_045512.2 (27286)	C	TTGATT	ACAT	CATAA	ACCT	CATAATT	AAAAAT	TTATC	TAGTCACT	AAC	TGAGAA	---TAAAT	TATTC	TCAA	TTAGATGA--AGA	GCAA	CCAATG	GA															
												Section 341																					
(32981)	32981	32990	33000	33010	33020	33030	33040	33050	33060	33077																							
Ad 12 X73487 (30831)	TTCGT	GGGG	ATATAG	ACAAGGCC	AATCAGT	GTCT	ACCAAT	ACTG	TT-AC	CAAT	GGTCTAG	GT	TTTTATGCC	TAA	TGTGAGT	GCT	T	ACCC	TAG	ACCAA													
SARS-CoV-2 NC_045512.2 (27378)	GATT-	GATT	AA	ACGA	ACA	TGAAA	ATTATTCT	TTTCTTGGC	ACTG	ATAAC	ACTCG	CTACTT	GT	GAGCTTTAT	CACTACCAAG	GAGT	GTGT	TAG	AGGT	A													
												Section 342																					
(33078)	33078	33090	33100	33110	33120	33130	33140	33150	33160	33174																							
Ad 12 X73487 (30927)	TGC	CAGT	GAGGC	TAAAAG	CCAAA	TG	GT	TAGTC	TCAC	GTACT	TAC-AGGG	AGAT	---ACAT	C	TAA	CC-----	TATAA	-CAAT	GAAAGT	TG-CAT	T												
SARS-CoV-2 NC_045512.2 (27474)	AA-	CAGT	ACTTT	TAAAAG	AACCT	TGCTC	---T	CTG	GAACA	TAC	GAGGG	CAAT	TCAC	CAT	TTCAT	CC	TCTAGCTG	ATAA	CA	AAT	TTGCAC	TGACT	TG										
												Section 343																					
(33175)	33175	33180	33190	33200	33210	33220	33230	33240	33250	33260	33271																						
Ad 12 X73487 (31011)	TAA	TG	GCAT	T-----	-AC	GT	CG	C	TAAAT	GG	A	TACTC	T	TAA	CAT	T--CAT	GT	-G	TCAG	GT	C	TAT	CAA--	ACT	AT--	ATAA	AT	C--					
SARS-CoV-2 NC_045512.2 (27567)	CTT	TA	GCAT	T	CAATTT	GCTTT	TGCTT	GT	C	T	GAC	GGCG	TAA	A	CACG	T	CTAT	CAGT	TAC	GTG	CCAG	GATCA	GT	TTCA	C	CCTAA	ACT	G	TTC	AT	C	AGAC	CAA

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																Section 344																											
	(33272)	33272	33280	33290	33300	33310	33320	33330	33340	33350	33368																																
Ad 12 X73487 (31082)	--AGCCT	TTC	TCTA	CACCA	ATC	CTG	CTCC	TTTTCTTA	CA	TTAC	C	CAAG	AAT	AAAA	AC	ACACA	-----CA	A	-----AA	---																							
SARS-CoV-2 NC_045512.2 (27664)	GAG	G	AAG	TTC	AAG	A	CTTT	ACT	CTC	CAAT	TTTTCTTA	TTG	TT	G	GG	CAA	T	AGT	GTTT	ATA	ACACTTTGCTTCACACTC	AAAAGAAAGACAGAATGAT																					
																Section 345																											
	(33369)	33369	33380	33390	33400	33410	33420	33430	33440	33450	33465																																
Ad 12 X73487 (31146)	CAC	AAA	TTGCG	TAC	TTATTG	T	TATTT	T	TTTT	-----	T	TT	TAC	CTATACG	C	TG	GTT	AA	ACT	GCC	TC	CTT	CCC	ATT	T	--	TAC	CT	TGT	A	TAC												
SARS-CoV-2 NC_045512.2 (27761)	TGA	A	CT	TT	CAT	TA	A	TTGACT	T	C	TATTT	G	TGC	TTTT	TAGCCTT	T	C	T	GCTA	----	TTC	C	TT	GTT	TT	AA	TTA	T	G	CTT	ATT	AT	CT	TTT	TGGT	T	CTC	A	CTT				
																Section 346																											
	(33466)	33466	33480	33490	33500	33510	33520	33530	33540	33550	33562																																
Ad 12 X73487 (31234)	CTC	C	TTTTCCCC	C	-----	TTT	GT	AG	CT	GAAAACAA	CTGC	A	CTTGA	ATAT	T	CGA	C	TTAGGT	TTTT	TGGC	G	TT	AG	CG	TC	CAC	AC	AG	TTT	C	-----	TTT	AC	GGG	CAA								
SARS-CoV-2 NC_045512.2 (27852)	GAA	C	TG	CA	AGAT	CA	TAATG	AA	ACT	TGT	CACG	C	TA	A	ACGA	--	CAT	G	AA	AT	TT	CTTG	TTTT	CTTA	G	GA	AT	CA	TC	ACA	AC	GT	AG	C	TG	CAT	TT	CA	CA				
																Section 347																											
	(33563)	33563	33570	33580	33590	33600	33610	33620	33630	33640	33659																																
Ad 12 X73487 (31329)	AG	CGA	G	GGT	CGGTGA	TGG	AAA	C	GAA	-T	CC	C	TCGCC	G	-	CACAG	T	CAC	--	T	CA	AG	CGG	CAT	TC	CC	CAT	C	CA	AAA	C	AGGTCC	A	TGAT	TT	TAT	CCT	ACA					
SARS-CoV-2 NC_045512.2 (27947)	AGA	AT	G	----	TAG	TTT	TAC	AG	T	CAT	GTA	CT	CA	ACAT	CA	A	C	CAT	A	T	GTA	GT	AGT	T	GAT	G	ACC	CG	T	GT	CC	TAT	CA	CTT	CTA	ATT	CTA	AAT	GGT	TAT	TAT	TAG	AGT
																Section 348																											
	(33660)	33660	33670	33680	33690	33700	33710	33720	33730	33740	33756																																
Ad 12 X73487 (31422)	AAA	AG	TAA	ACA	AC	AG	TCAG	TGT	C	CAT	CA	GCCG	CCCCAA	G	GAT	T	CTCTC	G	-T	TG	ATT	-AT	AAT	CT	CC	AA	AT	AAA	AT	TG	CT	CG	AT	GAT	GC	AT	AATTA	AAC					
SARS-CoV-2 NC_045512.2 (28040)	AGG	AG	CT	AG	-----	TC	AG	CAC	CTT	TA	ATTGA	ATTGT	G	CG	T	GGAT	G	AG	GC	TG	G	TT	CTA	AAT	C	ACC	-CAT	TC	AG	TACA	TC	GAT	ATC	G	GT	-----	AATTA	TAC					
																Section 349																											
	(33757)	33757	33770	33780	33790	33800	33810	33820	33830	33840	33853																																
Ad 12 X73487 (31517)	CTTTAGC	AGTT	GCTGA	C	-GATA	AC	GT	CAT	GCCG	AC	TA	TG	TT	T	TAGAGGGC	GAAC	AG	T	GTT	TT	CA	G	CA	AT	TA	CTTGA	ACAA	C	TT	TAA	C	ATT	A	G	CAG								
SARS-CoV-2 NC_045512.2 (28133)	-----	AGTT	T	--	C	CT	GT	TT	AC	CTT	T	-----	TAC	AA	--	TT	AAT	TGCCAG	GAAC	-C	T	AAA	TT	GG	T	AGT	--	CTTGT	AGT	G	CTT	GTT	C	----	G	----							
																Section 350																											
	(33854)	33854	33860	33870	33880	33890	33900	33910	33920	33930	33940	33950																															
Ad 12 X73487 (31613)	TC	TGG	TAC	GAC	GAG	C	GCAAC	AG	CG	CAT	GCGT	ATC	T	CAC	T	TAA	GT	CTT	TACAA	T	ATC	AC	AAC	-AC	AGC	ACT	AA	CAT	GT	TA	-TTT	AAA	AT	TCC	ATAAT								
SARS-CoV-2 NC_045512.2 (28203)	--	TTC	TAT	GA	AG	-A	CTTTTT	AG	AGT	AT	CAT	GAC	GT	TCG	T	GTT	GT	TTT	TAGATT	T	CATC	TAA	AC	G	A	CAAA	ACT	AA	AAT	GT	CTG	--	A	T	AAT	GG	ACCCCA						

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		Section 351																															
	(33951)	33951	33960	33970	33980	33990	34000	34010	34020	34030	34047																						
Ad 12 X73487 (31708)		TAA--AG-GCGCTCCATCCAAAAC	TAC	TTT	TTCTA	ACGC--TA	ACGAGG	CATGGGC	CATCAT	ACATA	ATTTTAAAGT-AA	AATTA	AAT--GGCG	ACCT																			
SARS-CoV-2 NC_045512.2 (28294)		AAATCAGCGAAATGCACCCCGCAT	TACG	TTT	GGTGG	ACCTCAG	ATTCAA	C-TGGCA	A--GTA	AC	CAGA	-----AT	G	GAGAA	CGCAG	TGGGGCG--CG																	
		Section 352																															
	(34048)	34048	34060	34070	34080	34090	34100	34110	34120	34130	34144																						
Ad 12 X73487 (31797)		CTAACAAAGGTGCTTC	CC	CATACAT	CACCTCT	T	TAGGC	CATTAAAT--GGTTA	---ACAA	CCTC	CCGATACCA	AAAAC	ACCTT	TT---GTTAAT	TAA																		
SARS-CoV-2 NC_045512.2 (28381)		ATCAAACAAC	GTCGG	CCCAAGGT	TACC	CAA	TATAC	TGCGTC	TTGGTT	CA	CCGCTCT	C	ACT	CAACAT	TGGCAAGGA	AGACC	TTAAAT	TCCC	TCGA														
		Section 353																															
	(34145)	34145	34150	34160	34170	34180	34190	34200	34210	34220	34230	34241																					
Ad 12 X73487 (31886)		GGCGC	CATATACGG	CCATTTTGA	ACCA	GCGT	CCAAAAG	-CAT	CC	CAGCT	TGACATAC	ACTGT	AGTGAAC	CCG	GACG	CTGG	CAATG	ACAA	TGA	ATAAG													
SARS-CoV-2 NC_045512.2 (28478)		GG	A--CA	AGGCGTT	CCA	ATT	AAC	ACCA	ATAG	CAGTCC	AG	ATGA	CCAAAT	TGG	TACT	AC	G	AAGAG	CTA	CCA	GACGAATT	CG	TG	GTGG	TGA--CG	G							
		Section 354																															
	(34242)	34242	34250	34260	34270	34280	34290	34300	34310	34320	34338																						
Ad 12 X73487 (31982)		CC	ACCGCTC	ATGA	C	CAT	GT	AAATA	-ATT	GAGT	AA	CTT	CA	ACAT	TTT--AT	AGT	GG	CAC	AA	CACAT	AC	ATA	C	ACTC	ATG	TATTT	TTTTT	CC	AAAT	AT----	AAA		
SARS-CoV-2 NC_045512.2 (28570)		TAA	AATGAA	AGAT	C	TCA	GT	CCA	AGAT	G	TAT	TT	CT	ACT	T	AGGA	ACT	GG	C	AG	AA	GCTGG	ACT	T	CC--T	ATG	GTGCT	TAACA	AA	AG	ACGGCATCA		
		Section 355																															
	(34339)	34339	34350	34360	34370	34380	34390	34400	34410	34420	34435																						
Ad 12 X73487 (32072)		CAT	CTCA	TAA	TC	AG	TTAG	AATCATA	T	CCC	A	CGGTAT	TGGCC	AT	TC	CTGCA	GCAC	TGTA	AAA	CCT	AC	ACATG	AAGGA	---AT	G	CT	CT	TA-----	CC				
SARS-CoV-2 NC_045512.2 (28665)		TAT	GGGT	TGC-A	AC	T	AG	GGGAGCCT	T	GA-	A	TACACCA	AAAAG	AT	CA	CATTG	GCAC	CCGC	AA	T	CCT	G	CTA	AC-AA	T	GCTGC	AAT	CG	T	G	CA	CACTT	CC
		Section 356																															
	(34436)	34436	34450	34460	34470	34480	34490	34500	34510	34520	34532																						
Ad 12 X73487 (32160)		TCA	-CTT	ACA	TT	AT	GTAA	AGTC	AG	ACTA	TT	AC	ACT	CAG	GCC	A	TAA	AG	A	TTTT	C	G	AAGTACTCA	ACGT	AG-CT	TTT	TGACT	GTT	CCT	CA	CAGG	G	CGG
SARS-CoV-2 NC_045512.2 (28759)		TCA	AGGA	ACA	AC	AT	TGCC	A---	AA	AGG	CT	CT	AC	G	CAG--	A	AGG	AG	CA	GAGG	C	GGC-----	AGTC	AAG	CT	CT	TCTC	GTT	CCT	CA	TCAC	G	TAG
		Section 357																															
	(34533)	34533	34540	34550	34560	34570	34580	34590	34600	34610	34629																						
Ad 12 X73487 (32255)		TAG	TTGGT	-A	CTT	GTT	G--	TATGGTGC	-	CAA	TCTGTAGCG	A	TAC	CGT	CT	GT	CG	CG	CTG	CA	TC	GTA	AACAAC	AGAC	TT	GCGAGC	GTCTT	CG	TACT	TA			
SARS-CoV-2 NC_045512.2 (28843)		TC	GC--	AAC	AG	TT	CAAG	A	AA-----	ATT	CAA	CT--C	---	C	AGG	CAG-	CAGT	AGG	GAACT	TC	TCTG	---CT	AGA	AT	TGCT	TGGC	AATGG	CG	GTGAT	G			

SARS-CoV-2 & Ad12.apr

											Section 358																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
(34630)	34630	34640	34650	34660	34670	34680	34690	34700	34710	34726																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Ad 12 X73487 (32347)	AAAAAA	C	AAAAC	CACG	TAC	GAC	C	CAC---	T	GGTTATCG	CAC	CT	CG	TCCTTTT--	TGT	TG	CAGCGTTGGCGTTCCGT	C	AAA	AA	AGCAAAGTACAA	C	CA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
SARS-CoV-2 NC_045512.2 (28923)	CTGCT-	C	TTGCTTTG	C	TG	CTT	-GACA	G	ATT	GAAC	C	A	G	CT	TG	A	GAGCAAAA	TGT	C	TG	TAAAGGCC-----	AA	C	AA	CAAGG-----	C	CA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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(34727)	34727	34740	34750	34760	34770	34780	34790	34800	34810	34823																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Ad 12 X73487 (32439)	CT	CTCG	CAGG	CTTGCT	AAAA	TG	TAT--TCA	GCTTC	-AG	GTGTTA	TC	-TTC	AAA	T	CAT	GATG	T	TTT	AA	TAAAGC	--GC	AGAGT	ATC	C	A	C	AGGAT	G	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
SARS-CoV-2 NC_045512.2 (29005)	AA	C	TG	CA--	C	T	AAGA	AA	T	C	TG	CTGCTGAG	GCTTC	T	A	G	AAGCC	TC	GGCA	AAA	A	C	G	T	AC	TG	C	-AC	TAAAGC	ATACA	A	TGTA	ACA	C	A	G	C	TTTCG	G	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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(34824)	34824	34830	34840	34850	34860	34870	34880	34890	34900	34910	34920																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Ad 12 X73487 (32529)	A	TGG----	G	C	T	A	AAC	C	AAG	C	CAT	G	C	T	A	TGCAG	G	C	A	G	C	G	T	G	TCC	G	A	C	T	T	A	C	AGG	A	G	G	A	G	G	A	-A	T	A	C	A	AGG	T	A	G	A	G	C	A	T	A	A	A	A	C	T	----	A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
SARS-CoV-2 NC_045512.2 (29099)	A	G	A	C	G	T	G	G	T	C	A	A	C	A	A	A	C	C	A	A	G	G	A	A	T	T	T	T	G	G	G	A	C	A	G	A	A	C	T	A	A	T	C	A	G	A	C	A	A	G	G	A	A	C	T	T	G	C	C	A	A	T	T	G	C	A	A	T	T	G	C	A	A	T	T	G	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A	A	T	T	G	C	C	A

SARS-CoV-2 & Ad12.apr

[illegible]

SARS-CoV-2 & Ad12.apr

										Section 372	
(35988)	35988	36000	36010	36020	36030	36040	36050	36060	36070	36084	
Ad 12 X73487 (33650)	GTGGAGGTATAACAAAATTTCGCAGGAGAAAAATAACACATAAGCATTAGAGTCGCCCTCTTGTTTAGGCAACATAGCCCCAGGTCCCGTAAAATACAC										
SARS-CoV-2 NC_045512.2 (29904)	-----										
										Section 373	
(36085)	36085	36090	36100	36110	36120	36130	36140	36150	36160	36170	36181
Ad 12 X73487 (33747)	ATAAAGAGTCTCAAAAGCAGCCATAATGCCTTACCAGAAAAACAGTACAAAGCCAGGCACAGCAGACACAATCTGCCGCAAGTGCGCACCTTTAATA										
SARS-CoV-2 NC_045512.2 (29904)	-----										
										Section 374	
(36182)	36182	36190	36200	36210	36220	36230	36240	36250	36260	36278	
Ad 12 X73487 (33844)	CTGAAAAATAGTGACGTAAATGGCCAAAGTTCGCCTACACAACACAAAAAAACCCCAAAAGCCGCGAAAAAAATCACTTCCGCATATGACTCGGC										
SARS-CoV-2 NC_045512.2 (29904)	-----										
										Section 375	
(36279)	36279	36290	36300	36310	36320	36330	36340	36350	36360	36375	
Ad 12 X73487 (33941)	ATAATACGGTGTTCTCAGACACGTACATCCGGCGCGCCCGGCTCCCACGCCGCGCCCCACTTCCTCATCCGCCCAAACCTTACAAGCAGGCCAAAG										
SARS-CoV-2 NC_045512.2 (29904)	-----										
										Section 376	
(36376)	36376	36390	36400	36410	36420	36430	36440	36450	36463		
Ad 12 X73487 (34038)	CCACACCTCCACCCAATCAAATTACACACTACGCCCACTTCATTTTAATATTGGCACTAGTCCAGTATAAGGTATATTATTAGATAGG										
SARS-CoV-2 NC_045512.2 (29904)	-----										