

Supplementary File 1: Summary of genomes studied, SSRs extracted and their distribution

		Virus Classification						
SI No.	Genome ID	Order	Family	Sub-family	Genus	Virus Name	Accession No	
1	CV02	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Canine coronavirus type II	GQ477367	
2	CV03	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Feline coronavirus type I	DQ848678	
3	CV04	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Feline coronavirus type II	AY994055	
4	CV05	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Porcine respiratory coronavirus	DQ811787	
5	CV06	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Transmissible gastroenteritis virus	AJ271965	
6	CV07	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Human coronavirus 229E	NC_002645	
7	CV08	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Human coronavirus NL63	AY567487	
8	CV09	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Miniopterus bat coronavirus 1A	NC_010437	
9	CV11	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Miniopterus bat coronavirus HKU8	NC_010438	
10	CV12	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Porcine epidemic diarrhea virus	NC_003436	
11	CV13	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Rhinolophus bat coronavirus HKU2	EF203065	
12	CV14	Nidovirales	Coronaviridae	Coronavirinae	Alphacoronavirus	Scotophilus bat coronavirus 512	NC_009657	
13	CV28	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Bovine coronavirus Mebus	U00735	
14	CV30	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Human coronavirus OC43 ATCC VR-759	AY585228	
15	CV32	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Human coronavirus HKU1 N1	NC_006577	
16	CV33	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Murine hepatitis virus JHM	NC_006852 / AC_000192	
17	CV34	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Rat coronavirus Parker	FJ938068	
18	CV35	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Pipistrellus bat coronavirus HKU5/HK/03/2005	NC_009020	
19	CV36	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Rousettus bat coronavirus HKU9/GD/005/2005	NC_009021	
20	CV37	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	SARS-related human coronavirus Urbani	AY278741	
21	CV38	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	SARS-related Rhinolophus bat coronavirus Rf1/2004	NC_009695 / NC_004718	
22	CV42	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	SARS-related palm civet coronavirus SZ3/2003	AY304486	
23	CV43	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	SARS-related chinese ferret badger coronavirus CFB/SZ/94/03	AY545919	
24	CV44	Nidovirales	Coronaviridae	Coronavirinae	Betacoronavirus	Tylonycteris bat coronavirus HKU4/HK/04/2005	NC_009019	
25	CV46	Nidovirales	Coronaviridae	Coronavirinae	Gammacoronavirus	Infectious bronchitis virus Beaudette	NC_001451	
26	CV47	Nidovirales	Coronaviridae	Coronavirinae	Gammacoronavirus	Turkey coronavirus ATCC	EU022526	
27	CV48	Nidovirales	Coronaviridae	Coronavirinae	Gammacoronavirus	Beluga whale coronavirus SW1	NC_010646	
28	CV53	Nidovirales	Coronaviridae	Coronavirinae	Related to subfamily Coronavirinae but not ap	Bulbul coronavirus HKU11	FJ376619	
29	CV55	Nidovirales	Coronaviridae	Coronavirinae	Related to subfamily Coronavirinae but not ap	Munia coronavirus HKU13	NC_011550	
30	CV57	Nidovirales	Coronaviridae	Coronavirinae	Related to subfamily Coronavirinae but not ap	Thrush coronavirus HKU12	NC_011549	
31	CV58	Nidovirales	Coronaviridae	Torovirinae	Torovirus	Bovine torovirus Breda I	AY427798	
32	CV60	Nidovirales	Coronaviridae	Torovirinae	Bafinivirus	White bream virus DF 24/00	DQ898157	
33	CV61	Nidovirales	Coronaviridae	Coronavirinae	Related to Betacoronavirus but not approved	Wuhan seafood market pneumonia virus isolate Wuhan-Hu-1	NC_045512	

Basic Information										
Genome ID	Size(kbp)	Genome Definition	GC%	Host	SSR	SSR Tract Size	sRA	sRD	cSSR	cSSR Tract Size
CV02	29.363	complete genome	37.7	Canis lupus familiaris (Dog)	111	919	3.780267684	31.2978919	5	124
CV03	29.277	complete genome	38.3	Felis catus (Cat)	96	716	3.27902449	24.45605766	3	61
CV04	29.355	complete genome	38.1	Felis catus (Cat)	107	843	3.645034917	28.71742463	2	49
CV05	27.55	complete genome	37.5	Sus scrofa (Wild Pig)	103	794	3.738656987	28.82032668	3	56
CV06	28.586	complete genome	37.6	Sus scrofa (Wild Pig)	96	738	3.358287273	25.81683341	2	31
CV07	27.317	complete genome	38.3	Homo sapiens (Human)	89	727	3.258044441	26.61346414	5	101
CV08	27.553	complete genome	34.5	Homo sapiens (Human)	109	887	3.95601205	32.19250172	5	88
CV09	28.326	complete genome	38.1	Miniopterus sp. (Bat)	82	667	2.894866907	23.54727106	4	81
CV11	28.773	complete genome	41.8	Miniopterus sp. (Bat)	91	750	3.162687242	26.06610364	5	110
CV12	28.033	complete genome	42.018336	Sus scrofa (Wild Pig)	87	713	3.103485178	25.43430956	4	68
CV13	27.164	complete genome	39.3	Rhinolophus sinicus (Chinese rufous horseshoe bat)	98	811	3.607716095	29.85569136	4	80
CV14	28.203	complete genome	40.1	Scotophilus kuhlii (Bat)	86	706	3.049320994	25.03279793	2	39
CV28	31.032	complete genome	37	Bos taurus (Cow)	122	953	3.931425625	30.7102346	7	143
CV30	30.741	complete genome	36.8	Homo sapiens (Human)	121	968	3.936111382	31.48889106	7	150
CV32	29.926	complete genome	32.1	Homo sapiens (Human)	140	1078	4.678206242	36.02218806	11	203
CV33	31.526	complete genome	42.031974	Mus musculus (Rat)	96	759	3.045105627	24.07536636	7	154
CV34	31.25	complete genome	41.3	Rattus norvegicus (Rat)	101	769	3.232	24.608	4	80
CV35	30.482	complete genome	43.2	Pipistrellus abramus, Chiroptera (Bat)	113	868	3.707105833	28.4758218	4	73
CV36	29.114	complete genome	41	Rousettus leschenaultii, Chiroptera (Bat)	116	891	3.984337432	30.60383321	6	139
CV37	29.727	complete genome	40.8	Homo sapiens (Human)	96	754	3.229387426	25.36414707	2	38
CV38	29.751	complete genome	40.761655	Chlorocebus aethiops, Homo sapiens	97	780	3.260394609	26.21760613	2	38
CV42	29.741	complete genome	40.8	Homo sapiens (Human)	91	721	3.059749168	24.24262802	1	25
CV43	29.739	complete genome	40.9	Melogale moschata (Chinese ferret-badger)	93	741	3.127206698	24.91677595	1	25
CV44	30.286	complete genome	37.816153	Tylonycteris pachypus, Chiroptera (Bat)	106	801	3.499966981	26.4478637	2	44
CV46	27.608	complete genome	37.9	Gallus gallus (Bird)	112	874	4.056795132	31.65749058	3	64
CV47	27.854	complete genome	38.3	Meleagris gallopavo (Bird)	99	731	3.554247146	26.2439865	2	51
CV48	31.686	complete genome	39.2	Delphinapterus leucas (beluga whale)	122	1002	3.850280881	31.62279871	3	69
CV53	26.487	complete genome	38.7	Pycnonotus jocosus (Bulbul Bird)	92	709	3.473402046	26.76784838	1	21
CV55	26.552	complete genome	42.5	Lonchura striata (Munia Bird)	96	762	3.615546851	28.69840313	4	100
CV57	26.396	complete genome	38	Turdus hortulorum, Turdus merula (Thrush Bird)	97	832	3.674799212	31.51992726	4	81
CV58	28.475	complete genome	38	Bos taurus (Cow)	126	999	4.424934153	35.0834065	6	117
CV60	26.66	complete genome	43.3	Blicca bjoerkna (Fish)	144	1284	5.401350338	48.16204051	9	236
CV61	29.903	complete genome	37.972779	Homo sapiens (Human)	107	857	3.578236297	28.65933184	6	144
	27.5972		39.14245142		3442	830.4242424	3.610727071	28.77088676	136	87.36363636
	Average		Average		Total	Average	Average	Average	Total	Average

Motif Distribution				Mono Repeat Motif Distribution								
Genome ID	DI Total Tract-size	TRI Total Rep Size	TRI Total Tract-size	A SSR Rep Size	A SSR Tract-size	C Rep Size	C Tract-size	G Rep Size	G Tract-size	T Rep Size	T Tract-size	MONO TOTAL Rep Size
CV02	390	41	445	2	12	0	0	0	0	1	7	3
CV03	383	22	236	4	42	0	0	0	0	7	44	11
CV04	418	96	339	1	8	0	0	0	0	3	18	4
CV05	401	25	256	1	6	0	0	0	0	6	36	7
CV06	362	28	294	3	18	0	0	0	0	2	12	5
CV07	313	23	237	3	58	0	0	0	0	9	55	12
CV08	313	29	315	2	13	0	0	0	0	18	113	20
CV09	292	27	281	2	23	0	0	0	0	0	0	2
CV11	335	28	308	1	16	0	0	0	0	1	6	2
CV12	306	27	292	1	6	1	6	0	0	3	19	5
CV13	328	29	313	2	21	0	0	0	0	7	43	9
CV14	306	27	272	3	36	0	0	0	0	3	19	6
CV28	479	32	353	1	6	0	0	0	0	5	31	6
CV30	455	43	364	3	42	0	0	0	0	4	24	7
CV32	358	27	296	11	74	0	0	0	0	40	248	51
CV33	370	24	253	2	21	0	0	0	0	4	24	6
CV34	411	29	300	0	0	1	6	0	0	3	18	4
CV35	475	23	251	2	22	0	0	1	6	1	6	4
CV36	413	28	292	3	28	0	0	0	0	10	60	13
CV37	398	22	244	1	8	2	12	1	6	2	13	6
CV38	398	22	244	2	34	2	12	1	6	2	13	7
CV42	380	22	244	0	0	2	12	1	6	1	6	4
CV43	386	24	264	0	0	2	12	1	6	0	0	3
CV44	392	22	229	8	58	0	0	0	0	6	36	14
CV46	439	29	311	4	24	1	6	1	6	4	25	10
CV47	439	16	172	4	34	1	6	1	6	2	13	8
CV48	492	28	299	5	56	1	6	1	6	5	30	12
CV53	376	24	263	2	22	0	0	0	0	2	12	4
CV55	411	26	276	1	16	0	0	0	0	2	12	3
CV57	344	32	366	1	16	0	0	0	0	5	30	6
CV58	339	29	310	4	26	1	6	2	12	32	205	39
CV60	492	52	580	7	68	1	6	0	0	3	18	11
CV61	398	30	317	3	47	0	0	0	0	4	26	7
		986		89		15		10		197		

CDS AND NCS							Di Repeat Motif Distribution							NCS
CA/AC Tract-size	AG Rep Size	AG Tract-size	GA Rep Size	GA Tract-size	AG/GA Rep Size	AG/GA Tract-size	GC Rep Size	GC Tract-size	CG Rep Size	CG Tract-size	GC/CG Rep Size	GC/CG Tract-size	TG Rep Size	
108	3	18	5	30	8	48	0	0	0	0	0	0	14	
92	4	24	6	36	10	60	0	0	0	0	0	0	13	
119	10	32	8	24	18	56	0	0	2	6	2	6	20	
100	3	20	3	18	6	38	0	0	0	0	0	0	14	
118	2	12	3	18	5	30	0	0	0	0	0	0	11	
53	5	30	1	6	6	36	0	0	0	0	0	0	15	
56	4	24	1	6	5	30	0	0	0	0	0	0	13	
70	1	6	4	24	5	30	0	0	0	0	0	0	10	
24	3	18	1	6	4	24	3	20	1	6	4	26	11	
86	1	6	1	6	2	12	0	0	0	0	0	0	13	
79	1	6	1	6	2	12	0	0	0	0	0	0	13	
82	2	12	0	0	2	12	0	0	0	0	0	0	17	
18	4	24	1	6	5	30	0	0	0	0	0	0	22	
36	4	24	1	6	5	30	1	6	0	0	1	6	19	
20	5	32	2	14	7	46	0	0	0	0	0	0	7	
42	6	36	3	22	9	58	2	12	0	0	2	12	14	
18	7	47	4	28	11	75	3	20	1	6	4	26	16	
84	7	42	5	30	12	72	1	6	2	12	3	18	12	
48	5	30	0	0	5	30	3	18	1	6	4	24	12	
120	3	18	5	32	8	50	3	18	1	6	4	24	14	
120	3	18	5	32	8	50	3	18	1	6	4	24	14	
114	3	18	4	26	7	44	2	12	1	6	3	18	14	
114	3	18	4	26	7	44	3	18	1	6	4	24	14	
42	6	36	1	6	7	42	0	0	0	0	0	0	17	
66	4	24	5	30	9	54	0	0	0	0	0	0	15	
96	4	24	4	24	8	48	0	0	0	0	0	0	12	
48	6	40	9	58	15	98	0	0	2	12	2	12	16	
68	4	24	2	12	6	36	0	0	0	0	0	0	5	
122	4	24	7	46	11	70	0	0	1	6	1	6	7	
66	4	24	3	18	7	42	0	0	0	0	0	0	6	
26	4	28	4	26	8	54	0	0	0	0	0	0	12	
416	0	0	0	0	0	0	0	0	0	0	0	0	2	
104	4	24	3	20	7	44							10	

TTA Rep size	TTA Tract size	AAT Rep size	AAT Tract size	TTA/AAT Rep size	TTA/AAT Tract size	TTC Rep size	TTC Tract size	AAG Rep size	AAG Tract size	TTC/AAG Rep size	TTC/AAG Tract size	TGG Rep size
1	10	4	48	5	58	0	0	0	0	0	0	0
1	10	0	0	1	10	1	12	0	0	1	12	0
6	20	6	19	12	39	0	0	3	9	3	9	6
1	10	1	10	2	20	0	0	0	0	0	0	0
1	10	1	10	2	20	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1
2	23	1	10	3	33	1	9	0	0	1	9	0
1	12	1	9	2	21	0	0	0	0	0	0	0
2	20	0	0	2	20	1	10	0	0	1	10	0
0	0	1	15	1	15	0	0	0	0	0	0	0
2	21	0	0	2	21	0	0	0	0	0	0	0
2	20	0	0	2	20	0	0	1	9	1	9	2
1	11	2	21	3	32	0	0	1	9	1	9	2
0	0	2	21	2	21	0	0	1	9	1	9	2
2	19	0	0	2	19	1	11	0	0	1	11	1
0	0	1	9	1	9	0	0	0	0	0	0	0
0	0	1	10	1	10	1	10	0	0	1	10	0
1	12	0	0	1	12	1	9	0	0	1	9	2
2	18	0	0	2	18	0	0	0	0	0	0	1
1	9	0	0	1	9	1	9	0	0	1	9	1
1	9	0	0	1	9	1	9	0	0	1	9	1
1	9	0	0	1	9	1	9	0	0	1	9	2
1	10	0	0	1	10	1	10	0	0	1	10	1
1	10	1	12	2	22	1	10	1	9	2	19	0
1	11	0	0	1	11	0	0	2	21	2	21	1
2	19	0	0	2	19	0	0	4	44	4	44	1
1	10	0	0	1	10	0	0	1	12	1	12	0
0	0	0	0	0	0	0	0	0	0	0	0	0
2	22	0	0	2	22	0	0	0	0	0	0	0
0	0	3	28	3	28	0	0	0	0	0	0	5
0	0	0	0	0	0	1	9	0	0	1	9	0
		1	12	1	12	2	18	1	9	3	27	

CTT/GAA Rep size	CTT/GAA Tract size	TCT Rep size	TCT Tract size	AGA Rep size	AGA Tract size	TCT/AGA Rep size	TCT/AGA Tract size	ATC Rep size	ATC Tract size	TAG Rep size	TAG Tract size	ATC/TAG Rep size
1	12	1	9	1	18	2	27	0	0	2	21	2
0	0	0	0	1	12	1	12	0	0	0	0	0
0	0	3	9	3	18	6	27	0	0	6	24	6
1	12	1	10	2	21	3	31	0	0	1	9	1
1	12	0	0	3	39	3	39	0	0	2	20	2
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	9	0	0	1	9	0	0	0	0	0
1	9	1	11	0	0	1	11	0	0	1	12	1
1	12	0	0	0	0	0	0	0	0	0	0	0
2	20	0	0	0	0	0	0	0	0	0	0	0
0	0	1	11	1	9	2	20	0	0	0	0	0
0	0	0	0	0	0	0	0	1	10	0	0	1
1	10	0	0	0	0	0	0	0	0	0	0	0
1	10	0	0	0	0	0	0	0	0	0	0	0
2	24	0	0	0	0	0	0	0	0	0	0	0
2	18	0	0	0	0	0	0	0	0	0	0	0
2	18	1	9	0	0	1	9	0	0	0	0	0
1	10	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
4	48	0	0	0	0	0	0	1	10	0	0	1
4	48	0	0	0	0	0	0	1	10	0	0	1
4	48	0	0	0	0	0	0	1	10	0	0	1
4	48	0	0	0	0	0	0	2	20	0	0	2
1	9	0	0	0	0	0	0	0	0	0	0	0
2	19	1	10	0	0	1	10	0	0	2	23	2
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	2	18	2	18	0	0	0	0	0
1	9	0	0	0	0	0	0	1	9	0	0	1
1	9	0	0	0	0	0	0	1	11	0	0	1
2	18	0	0	0	0	0	0	0	0	0	0	0
1	10	0	0	0	0	0	0	0	0	0	0	0
2	21	1	11	1	12	2	23	1	12	0	0	1
2	24					0	0					0

ATC/TAG Tract size	CGA Rep size	CGA Tract size	GCT Rep size	GCT Rep size	CGA/GCT Rep size	CGA/GCT Tract size	GAC Rep size	GAC Tract size	CTG Rep size	CTG Tract size	GAC/CTG Rep size
21	0	0	1	11	1	11	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	10	1
24	0	0	3	12	3	12	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	2	22	2	22	0	0	0	0	0
0	0	0	1	12	1	12	0	0	1	12	1
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	24	2
10	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	12	1
0	0	0	0	0	0	0	0	0	1	9	1
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	12	1	12	0	0	1	12	1
0	0	0	2	22	2	22	0	0	0	0	0
0	0	0	1	9	1	9	0	0	0	0	0
0	0	0	2	19	2	19	0	0	1	11	1
10	1	12	0	0	1	12	0	0	2	19	2
10	1	12	0	0	1	12	0	0	2	19	2
10	1	12	0	0	1	12	0	0	2	19	2
20	1	12	0	0	1	12	0	0	2	19	2
0	0	0	0	0	0	0	0	0	1	10	1
23	0	0	1	12	1	12	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	21	2
9	0	0	1	12	1	12	0	0	0	0	0
11	0	0	2	24	2	24	0	0	0	0	0
0	0	0	2	24	2	24	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
0	1	12	1	10	2	22			1	9	1

GAC/CTG Tract size	AGC Rep size	AGC Tract size	TCG Rep size	TCG Tract size	AGC/TCG Rep size	AGC/TCG Tract size	TAT Rep size	TAT Tract size	ATA Rep size	ATA Tract size	TAT/ATA Rep size
0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	1	11	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	9	0	0	1
0	0	0	1	12	1	12	1	10	0	0	1
0	0	0	0	0	0	0	1	12	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0
24	0	0	0	0	0	0	2	22	0	0	2
0	1	10	0	0	1	10	2	20	0	0	2
12	0	0	0	0	0	0	2	23	1	9	3
9	0	0	0	0	0	0	2	22	1	12	3
0	0	0	0	0	0	0	1	11	1	12	2
12	1	9	1	9	2	18	0	0	3	30	3
0	0	0	0	0	0	0	2	20	2	19	4
0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	3	33	1	12	4
19	0	0	0	0	0	0	1	15	0	0	1
19	0	0	0	0	0	0	1	15	0	0	1
19	0	0	0	0	0	0	1	15	0	0	1
19	0	0	0	0	0	0	1	15	0	0	1
10	0	0	0	0	0	0	1	12	1	11	2
0	0	0	0	0	0	0	0	0	2	24	2
0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	2	28	0	0	2
0	0	0	0	0	0	0	1	12	0	0	1
0	1	10	0	0	1	10	0	0	1	9	1
0	0	0	0	0	0	0	1	14	0	0	1
0	0	0	0	0	0	0	2	19	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0
9					0	0	1	10			1

Tri Repeat Motif Distribution											
TAT/ATA Tract size	CAC Rep size	CAC Tract size	GTG Rep size	GTG Tract size	CAC/GTG Rep size	CAC/GTG Tract size	ACA Rep size	ACA Tract size	TGT Rep size	TGT Tract size	ACA/TGT Rep size
0	0	0	3	33	3	33	4	43	3	31	7
11	0	0	2	23	2	23	3	32	0	0	3
0	0	0	3	11	3	11	0	0	6	21	6
0	0	0	1	11	1	11	0	0	0	0	0
9	0	0	1	11	1	11	1	9	0	0	1
10	0	0	0	0	0	0	0	0	5	50	5
12	0	0	0	0	0	0	0	0	5	59	5
0	0	0	2	18	2	18	0	0	2	22	2
0	0	0	3	33	3	33	1	12	7	79	8
0	0	0	2	21	2	21	1	12	5	54	6
22	0	0	0	0	0	0	0	0	3	33	3
20	1	10	1	10	2	20	0	0	2	20	2
32	0	0	0	0	0	0	0	0	3	33	3
34	0	0	0	0	0	0	0	0	4	43	4
23	0	0	0	0	0	0	0	0	3	31	3
30	0	0	0	0	0	0	0	0	2	24	2
39	0	0	1	10	1	10	0	0	3	36	3
0	0	0	0	0	0	0	0	0	2	21	2
45	0	0	1	10	1	10	0	0	4	45	4
15	0	0	1	9	1	9	1	12	0	0	1
15	0	0	1	9	1	9	1	12	0	0	1
15	0	0	1	9	1	9	1	12	0	0	1
23	0	0	0	0	0	0	0	0	3	31	3
24	0	0	1	11	1	11	1	11	2	21	3
0	0	0	0	0	0	0	0	0	2	21	2
28	0	0	1	12	1	12	0	0	0	0	0
12	0	0	0	0	0	0	0	0	4	46	4
9	0	0	1	13	1	13	0	0	3	33	3
14	0	0	1	10	1	10	2	26	7	81	9
19	0	0	0	0	0	0	0	0	4	46	4
0	1	12	0	0	1	12	8	88	0	0	8
10			1	9	1	9			2	25	2

ACA/TGT Tract size	AGG Rep size	AGG Tract size	TCC Rep size	TCC Tract size	AGG/TCC Rep size	AGG/TCC Tract size	CAG Rep size	CAG Tract size	GTC Rep size	GTC Tract size	CAG/GTC Rep size
74	0	0	0	0	0	0	1	10	0	0	1
32	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0
59	0	0	1	12	1	12	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	1	10	0	0	1
33	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	1	12	0	0	1
43	0	0	1	9	1	9	1	12	0	0	1
31	0	0	0	0	0	0	1	12	0	0	1
24	0	0	0	0	0	0	2	21	0	0	2
36	0	0	0	0	0	0	1	9	0	0	1
21	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	1	11	0	0	1
32	0	0	0	0	0	0	1	13	0	0	1
21	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	3	28	0	0	3
46	0	0	0	0	0	0	1	10	0	0	1
33	0	0	0	0	0	0	1	9	0	0	1
107	0	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0
88	0	0	1	9	1	9	0	0	1	10	1
25					0	0	1	10			1

CAG/GTC Tract size	CAT Rep size	CAT Tract size	GTA Rep size	GTA Tract size	CAT/GTA Rep size	CAT/GTA Tract size	GGA Rep size	GGA Tract size	CCT Rep size	CCT Tract size	GGA/CCT Rep size
10	0	0	1	10	1	10	0	0	0	0	0
0	1	10	1	10	2	20	0	0	0	0	0
0	3	10	3	10	6	20	0	0	0	0	0
0	0	0	1	10	1	10	0	0	0	0	0
0	0	0	1	10	1	10	0	0	0	0	0
0	0	0	0	0	0	0	1	10	0	0	1
0	0	0	1	10	1	10	0	0	0	0	0
0	0	0	1	10	1	10	0	0	1	9	1
0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	1	10	1	10	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	10	1	10	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
12	0	0	2	24	2	24	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
9	0	0	1	12	1	12	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	9	1
0	0	0	0	0	0	0	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
9	0	0	1	12	1	12	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
10	1	10	1	9	2	19	0	0	0	0	0
10					0	0					0

GGA/CCT Tract size	AAC Rep size	AAC Tract size	TTG Rep size	TTG Tract size	AAC/TTG Rep size	AAC/TTG Tract size	CCA Rep size	CCA Tract size	GGT Rep size	GGT Tract size	CCA/GGT Rep size
0	1	13	2	18	3	31	0	0	0	0	0
0	0	0	1	9	1	9	0	0	1	10	1
0	3	13	3	9	6	22	3	10	0	0	3
0	1	12	2	21	3	33	1	10	0	0	1
0	2	25	2	21	4	46	1	10	0	0	1
10	0	0	4	38	4	38	0	0	0	0	0
0	0	0	5	51	5	51	0	0	2	24	2
9	1	9	4	40	5	49	1	12	0	0	1
0	0	0	2	22	2	22	1	12	1	9	2
0	0	0	1	12	1	12	1	10	1	12	2
0	1	9	4	46	5	55	0	0	2	21	2
0	0	0	3	34	3	34	1	10	1	11	2
0	0	0	3	35	3	35	0	0	0	0	0
0	0	0	3	35	3	35	0	0	0	0	0
0	0	0	4	46	4	46	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0
9	0	0	3	31	3	31	0	0	0	0	0
0	1	9	1	9	2	18	0	0	2	18	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	20	2	20	0	0	1	9	1
0	0	0	1	9	1	9	0	0	1	11	1
0	0	0	1	9	1	9	0	0	0	0	0
0	0	0	0	0	0	0	1	9	0	0	1
0	1	11	2	20	3	31	0	0	0	0	0
0	0	0	2	22	2	22	1	11	0	0	1
0	1	11	3	35	4	46	0	0	0	0	0
0	1	12	4	43	5	55	0	0	1	12	1
0	4	43	0	0	4	43	1	12	0	0	1
0	1	10			1	10	1	10	1	10	2

CCA/GGT Tract size	CAA Rep size	CAA Tract size	GTT Rep size	GTT Tract size	CAA/GTT Rep size	CAA/GTT Tract size	TCA Rep size	TCA Tract size	AGT Rep size	AGT Tract size	TCA/AGT Rep size
0	2	21	1	9	3	30	0	0	0	0	0
10	0	0	1	9	1	9	0	0	0	0	0
10	3	10	3	9	6	19	3	9	0	0	3
10	0	0	2	18	2	18	1	9	0	0	1
10	1	10	2	18	3	28	1	9	0	0	1
0	0	0	2	22	2	22	1	9	0	0	1
24	0	0	2	21	2	21	0	0	0	0	0
12	0	0	2	23	2	23	0	0	0	0	0
21	1	10	1	12	2	22	0	0	0	0	0
22	0	0	2	21	2	21	0	0	0	0	0
21	0	0	1	10	1	10	0	0	0	0	0
21	3	29	2	21	5	50	0	0	0	0	0
0	1	9	3	36	4	45	0	0	1	10	1
0	1	9	4	45	5	54	0	0	1	10	1
0	0	0	3	30	3	30	0	0	0	0	0
0	0	0	1	13	1	13	0	0	1	12	1
0	1	9	0	0	1	9	1	10	0	0	1
0	1	12	0	0	1	12	1	13	0	0	1
0	0	0	1	9	1	9	0	0	0	0	0
0	1	12	0	0	1	12	0	0	0	0	0
0	1	12	0	0	1	12	0	0	0	0	0
0	1	12	0	0	1	12	0	0	0	0	0
0	1	12	0	0	1	12	0	0	0	0	0
9	0	0	0	0	0	0	0	0	1	10	1
11	0	0	3	36	3	36	0	0	0	0	0
0	0	0	2	26	2	26	1	10	1	12	2
9	0	0	1	9	1	9	0	0	1	10	1
0	1	10	1	12	2	22	0	0	0	0	0
11	2	22	3	30	5	52	1	11	0	0	1
0	2	24	1	11	3	35	0	0	0	0	0
12	0	0	1	12	1	12	0	0	0	0	0
12	14	173	0	0	14	173	5	53	0	0	5
20	3	32			3	32			1	12	1

TCA/AGT Tract size	ATT Rep size	ATT Tract size	TAA Rep size	TAA Tract size	ATT/TAA Rep size	ATT/TAA Tract size	ATC Rep size	ATC Tract size	TAG Rep size	TAG Tract size	ATC/TAG Rep size	ATC/TAG Tract size
0	3	30	1	12	4	42	0	0	0	0	0	0
0	1	9	2	24	3	33	0	0	0	0	0	0
9	6	21	0	0	6	21	0	0	0	0	0	0
9	2	19	1	12	3	31	0	0	0	0	0	0
9	2	19	1	12	3	31	0	0	0	0	0	0
9	1	10	0	0	1	10	0	0	0	0	0	0
0	0	0	1	12	1	12	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	9	1	12	2	21	0	0	0	0	0	0
0	0	0	1	9	1	9	0	0	0	0	0	0
0	2	18	0	0	2	18	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
10	2	23	0	0	2	23	0	0	0	0	0	0
10	2	23	0	0	2	23	0	0	0	0	0	0
0	1	12	1	12	2	24	0	0	0	0	0	0
12	2	19	0	0	2	19	0	0	0	0	0	0
10	1	10	0	0	1	10	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
0	2	20	1	12	3	32	0	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0	0
0	1	9	0	0	1	9	0	0	0	0	0	0
10	1	10	2	22	3	32	0	0	0	0	0	0
0	0	0	1	10	1	10	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
10	2	22	1	9	3	31	0	0	0	0	0	0
0	1	11	1	12	2	23	0	0	0	0	0	0
11	2	21	0	0	2	21	0	0	0	0	0	0
0	1	12	1	12	2	24	0	0	0	0	0	0
0	1	9	1	9	2	18	0	0	0	0	0	0
53	1	12	0	0	1	12	0	0	0	0	0	0
12					0	0	2	19			2	19

		SSRs Distribution							SSRs in Non Coding Sequence(NCS)						
TRI Total Tract-size	Genome ID	Mono SSR	Di SSR	Tri SSR	Tetra SSR	Penta SSI	Hexa SSR	Total SSR	SSR NCS Total	Mono SSR NCS	Di SSR NCS	Tri SSR NCS	Tetra SSR NCS	Centa SSR NCS	Hexa SSR NCS
445	CV02	3	62	41	4		1	111	1			1			2
236	CV03	11	62	22	1			96	10	1	5	4			20
339	CV04	4	66	32	5			107	2		2				4
256	CV05	7	64	25	5		2	103	6		5	1			12
294	CV06	5	59	28	3		1	96	4	1	2	1			8
237	CV07	12	49	23	4		1	89	4	1	3				8
315	CV08	20	50	29	6	3	1	109	4		2	1	1		8
281	CV09	2	47	27	6			82	3	1	2				6
308	CV11	2	54	28	6	1		91	3	1	1	1			6
292	CV12	5	48	27	6	1		87	2		2				4
313	CV13	9	104	87	24	5	6	235	3	1	2				6
272	CV14	6	47	27	5	1		86	7	2	4	1			14
353	CV28	6	78	32	4	1	1	122	34	2	18	12	1	1	68
364	CV30	7	74	34	4	1	1	121							
296	CV32	51	55	27	3	2	2	140	4		4				8
253	CV33	6	59	24	5	1	1	96	6	1	3		1	1	12
300	CV34	4	65	29	3			101	2		2				4
251	CV35	4	77	23	8	1		113	5	1	3		1		10
292	CV36	13	67	28	7	1		116	5	1	3	1			10
244	CV37	6	63	22	3		2	96	2		1	1			4
244	CV38	7	63	22	3		2	97	3	1	1	1			6
244	CV42														
264	CV43														
229	CV44	14	63	22	6	1		106	3	1	1	1			6
311	CV46	10	68	29	3	2		112	6	1	4			1	12
172	CV47	8	70	16	4	1		99	5	2	2			1	10
299	CV48	12	73	28	9			122	7	2	5				14
263	CV53	4	61	24	3			92	3	1	1	1			6
276	CV55	3	63	26	4			96	4	1	3				8
366	CV57	6	53	32	6			97	4	1	2	1			8
310	CV58	39	50	29	5	2	1	126	4	1	2		1		8
580	CV60	11	73	52	5	1	2	144	8	2	4	2			16
317	CV61	7	64	30	6			107	5	1	3	1			10
									159						

Genome ID	SSRs in Coding Sequence (CDS)							envelope protein	E	membrane glycoprotein	putative membrane protein	membrane protein
	CDS SSR Total	Mono SSR CDS	Di SSR CDS	Tri SSR CDS	Tetra SSR CDS	Penta SSR CDS	Hexa SSR CDS					
CV02	110	3	62	40	4	0	1	0	0			2
CV03	86	10	57	18	1	0	0	0	1			0
CV04	105	4	64	32	5	0	0		1			
CV05	97	7	59	24	5	0	2	1				2
CV06	92	4	57	27	3	0	1	1				3
CV07	85	11	46	23	4	0	1	3				3
CV08	105	20	48	28	5	3	1	1				3
CV09	79	1	45	27	6	0	0					
CV11	88	1	53	27	6	1	0	2				
CV12	85	5	46	27	6	1	0					
CV13	232	8	102	87	24	5	6					
CV14	79	4	43	26	5	1	0	1				
CV28	88	4	60	20	3	0	1					
CV30	121	7	74	34	4	1	1	1				1
CV32	136	51	51	27	3	2	2			2		
CV33	90	5	56	24	4	0	1	1				1
CV34	99	4	63	29	3	0	0	1				4
CV35	108	3	74	23	7	1	0			1		
CV36	111	12	64	27	7	1	0					
CV37	94	6	62	21	3	0	2	2				
CV38	94	6	62	21	3	0	2	2				
CV42	0	0	0	0	0	0	0					
CV43	0	0	0	0	0	0	0					
CV44	103	13	62	21	6	1	0			1		
CV46	106	9	64	29	3	1	0					2
CV47	94	6	68	16	4	0	0	1				
CV48	115	10	68	28	9	0	0					
CV53	89	3	60	23	3	0	0					1
CV55	92	2	60	26	4	0	0					2
CV57	93	5	51	31	6	0	0					1
CV58	122	38	48	29	4	2	1					
CV60	136	9	69	50	5	1	2				1	
CV61	102	6	61	29	6	0	0		2			
	3236	277	1859	894	161	21	24	17	4	4	1	25

matrix protein	M	N	nucleoprotein	putative nucleocapsid protein	nucleocapsid protein	nucleocapsid phosphoprotein	protein 3	ORF1	ORF3 protein	putative ORF3	32 kD non-structural protein
					6						
	1	6			0						
2		2			6						
			8								
			7								
					4						
					4		1				
					1				1		
					1						
					7						
2						2		59		1	
					4						
						2					
					5						
					4						2
						2					
						5					
		4									
					4						
						3					
					4						
6	3	3			4						
					4						
						1					
						2					
						2					
				4							
10	1 5	4 19	15	4	54	19	1	59	1	1	2

ns2	non-structural protein	hypothetical protein sars3a	ORF3a	3a protein	3b protein	3b protein,3b proteinsmall virion-associated protein	nonstructural protein	non-structural protein 3a
								3
								0
								3
3	1							
		5						
				1	1	1		
				1				
							6	
							2	
							4	
			4					
3	1	5	4	2	1	1	12	6

teins														
ORF 1ab polyprotein	polyprotein 1ab	polyprotein ab	putative 3a protein	putative 3b protein	accessory protein 4	ORF 5b	ORF 5c	ORF 6	ORF 7	ORF7a	ORF 9	ORF8	ORF10	small membrane protein
76														
0	68		0	0										
		71	3	2										
64														
67														
175														
88														
87														
97														
69					1									
73														
80														
83														
60														
75														
74														
68														
79						2	1	2	1		4			1
61														
73														
77														
91														
118														
71										1		2	2	
1806	68	71	3	2	1	2	1	2	1	1	4	2	2	1

small virion-associated protein	p30 accessory protein	putative spike protein	spike protein	spike glycoprotein	surface glycoprotein	spike surface glycoprotein	S	replicasespike protein,spike protein
			14					
			0				10	
			12					
			8					
			13					1
					6			
			14					
			13					
			16					
			9					
				26				
			14					
						15		
	2			19				
				9				
			14					
				15				
				11			20	
				13				
2			18					
			14					
			15					
				20				
				13				
				11				
				22				
		13						
							15	
2	2	13	174	159	6	15	45	1

replicase	replicase 1a	replicase 1b	replicase polyprotein 1ab	hypothetical protein	hemagglutinin-esterase	hemagglutinin-esterase glycoprotein	small membrane protein	E2 glycoprotein precursor
	43	29						
61			67					
			82					
				2				
				31				
					8			
						12	3	
						2		
				5			5	
				11			1	
								20
				8			3	
61	43	29	149	57	9	14	12	20

Supplementary File 2: Extracted information from IGLSF for distribution of SSRs along with their gene location found in the Coronaviridae genomes.

Genome ID					Genome ID				
CV02					CV34				
S.No	Consensus	Start	End	SSR Location in Gene	S.No	Consensus	Start	End	SSR Location in Gene
1	TAG	231	239	NC	1	TG	1034	1039	orf1ab polyprotein
2	TA	646	651	ORF 1ab polyprotein	2	TG	1306	1311	orf1ab polyprotein
3	CT	807	812	ORF 1ab polyprotein	3	TCA	1454	1463	orf1ab polyprotein
4	AG	1045	1050	ORF 1ab polyprotein	4	TA	1705	1710	orf1ab polyprotein
5	GTG	1053	1064	ORF 1ab polyprotein	5	AG	1747	1752	orf1ab polyprotein
6	GT	1669	1674	ORF 1ab polyprotein	6	TGT	2492	2503	orf1ab polyprotein
7	TGA	2086	2100	ORF 1ab polyprotein	7	TA	2581	2586	orf1ab polyprotein
8	A	2238	2243	ORF 1ab polyprotein	8	TC	2777	2782	orf1ab polyprotein
9	ATGC	2279	2290	ORF 1ab polyprotein	9	TGA	3011	3022	orf1ab polyprotein
10	TCT	2434	2442	ORF 1ab polyprotein	10	GAT	3063	3074	orf1ab polyprotein
11	GTG	2944	2954	ORF 1ab polyprotein	11	TG	3290	3300	orf1ab polyprotein
12	TC	3246	3251	ORF 1ab polyprotein	12	GT	3498	3503	orf1ab polyprotein
13	GAA	3305	3316	ORF 1ab polyprotein	13	T	4278	4283	orf1ab polyprotein
14	GCT	3479	3489	ORF 1ab polyprotein	14	ACTT	4527	4538	orf1ab polyprotein
15	T	3628	3634	ORF 1ab polyprotein	15	CAA	4571	4579	orf1ab polyprotein
16	TG	4073	4078	ORF 1ab polyprotein	16	GA	4903	4908	orf1ab polyprotein
17	CAA	4167	4177	ORF 1ab polyprotein	17	TA	5325	5330	orf1ab polyprotein
18	GA	4739	4744	ORF 1ab polyprotein	18	GT	5957	5962	orf1ab polyprotein
19	GT	4815	4820	ORF 1ab polyprotein	19	AG	6735	6740	orf1ab polyprotein
20	TGC	4975	4986	ORF 1ab polyprotein	20	AG	6789	6799	orf1ab polyprotein
21	TG	5390	5395	ORF 1ab polyprotein	21	TCT	6868	6876	orf1ab polyprotein
22	GTGTTA	5400	5417	ORF 1ab polyprotein	22	TA	6917	6922	orf1ab polyprotein
23	ATG	5564	5573	ORF 1ab polyprotein	23	TC	7110	7115	orf1ab polyprotein
24	AAT	6016	6025	ORF 1ab polyprotein	24	GT	7318	7323	orf1ab polyprotein
25	GT	6292	6297	ORF 1ab polyprotein	25	CT	7373	7383	orf1ab polyprotein
26	CT	6889	6894	ORF 1ab polyprotein	26	TG	7388	7393	orf1ab polyprotein
27	TG	6914	6919	ORF 1ab polyprotein	27	CT	7806	7811	orf1ab polyprotein
28	GAT	7421	7429	ORF 1ab polyprotein	28	GA	7905	7912	orf1ab polyprotein
29	TG	7922	7927	ORF 1ab polyprotein	29	ATG	7927	7935	orf1ab polyprotein
30	ATGC	7932	7942	ORF 1ab polyprotein	30	TGT	8006	8017	orf1ab polyprotein
31	AT	8221	8226	ORF 1ab polyprotein	31	TC	8659	8664	orf1ab polyprotein
32	ATT	8324	8332	ORF 1ab polyprotein	32	TA	9264	9269	orf1ab polyprotein
33	TA	8479	8484	ORF 1ab polyprotein	33	GTG	9525	9534	orf1ab polyprotein
34	GA	8762	8767	ORF 1ab polyprotein	34	TTTA	9565	9575	orf1ab polyprotein
35	AC	8907	8912	ORF 1ab polyprotein	35	AG	10050	10055	orf1ab polyprotein
36	TG	9792	9797	ORF 1ab polyprotein	36	AC	10453	10458	orf1ab polyprotein
37	AC	9933	9938	ORF 1ab polyprotein	37	TG	10585	10590	orf1ab polyprotein
38	CA	10080	10085	ORF 1ab polyprotein	38	TG	11209	11214	orf1ab polyprotein
39	TG	10435	10445	ORF 1ab polyprotein	39	TGT	11724	11735	orf1ab polyprotein
40	GCA	11180	11189	ORF 1ab polyprotein	40	CAG	12121	12129	orf1ab polyprotein
41	TTG	11364	11372	ORF 1ab polyprotein	41	TG	13168	13173	orf1ab polyprotein
42	GA	11546	11551	ORF 1ab polyprotein	42	TA	13209	13214	orf1ab polyprotein
43	AG	11594	11599	ORF 1ab polyprotein	43	TA	13343	13348	orf1ab polyprotein
44	TG	11946	11951	ORF 1ab polyprotein	44	CA	13866	13871	orf1ab polyprotein
45	AG	11994	11999	ORF 1ab polyprotein	45	ACC	14396	14405	orf1ab polyprotein
46	TA	12892	12897	ORF 1ab polyprotein	46	CATT	14437	14447	orf1ab polyprotein
47	GTT	13771	13779	ORF 1ab polyprotein	47	CTT	14836	14844	orf1ab polyprotein
48	TTG	14516	14524	ORF 1ab polyprotein	48	TGA	15792	15801	orf1ab polyprotein
49	CA	14740	14745	ORF 1ab polyprotein	49	TG	15808	15813	orf1ab polyprotein
50	GT	14816	14821	ORF 1ab polyprotein	50	TAT	15873	15883	orf1ab polyprotein
51	TG	15101	15115	ORF 1ab polyprotein	51	AT	16177	16182	orf1ab polyprotein
52	TG	15234	15239	ORF 1ab polyprotein	52	TG	16459	16464	orf1ab polyprotein
53	TTA	15293	15302	ORF 1ab polyprotein	53	TA	16590	16595	orf1ab polyprotein
54	TAA	16137	16148	ORF 1ab polyprotein	54	TA	16619	16624	orf1ab polyprotein
55	AAC	16558	16570	ORF 1ab polyprotein	55	GT	16938	16943	orf1ab polyprotein
56	GTA	16706	16715	ORF 1ab polyprotein	56	GC	17216	17221	orf1ab polyprotein
57	AC	16730	16735	ORF 1ab polyprotein	57	TA	17226	17231	orf1ab polyprotein
58	TG	16820	16825	ORF 1ab polyprotein	58	TG	17262	17267	orf1ab polyprotein
59	AT	16965	16970	ORF 1ab polyprotein	59	TTG	17424	17435	orf1ab polyprotein
60	AT	17055	17060	ORF 1ab polyprotein	60	ATA	17682	17690	orf1ab polyprotein
61	CA	17095	17100	ORF 1ab polyprotein	61	T	18184	18189	orf1ab polyprotein
62	TA	17591	17596	ORF 1ab polyprotein	62	GA	18491	18498	orf1ab polyprotein
63	ACA	17612	17621	ORF 1ab polyprotein	63	GCA	18518	18526	orf1ab polyprotein
64	CA	18145	18150	ORF 1ab polyprotein	64	TG	19093	19098	orf1ab polyprotein
65	TG	18267	18272	ORF 1ab polyprotein	65	TG	19288	19293	orf1ab polyprotein
66	TGC	18297	18306	ORF 1ab polyprotein	66	CG	19305	19310	orf1ab polyprotein
67	GT	18745	18750	ORF 1ab polyprotein	67	TG	19451	19456	orf1ab polyprotein
68	TAC	18822	18830	ORF 1ab polyprotein	68	GT	19953	19958	orf1ab polyprotein

69	AC	19001	19006	ORF 1ab polyprotein	69	AG	20239	20244	orf1ab polyprotein
70	TG	19293	19298	ORF 1ab polyprotein	70	GTA	20616	20627	orf1ab polyprotein
71	ACT	19622	19632	ORF 1ab polyprotein	71	GT	20631	20636	orf1ab polyprotein
72	GT	19633	19640	ORF 1ab polyprotein	72	TG	20699	20704	orf1ab polyprotein
73	CA	19643	19648	ORF 1ab polyprotein	73	GCT	20801	20812	orf1ab polyprotein
74	GA	19758	19763	ORF 1ab polyprotein	74	GA	22281	22286	32 kD non-structural protein
75	TA	20146	20151	ORF 1ab polyprotein	75	AT	22321	22326	32 kD non-structural protein
76	CA	20183	20188	ORF 1ab polyprotein	76	TTC	22799	22808	hemagglutinin-esterase
77	AC	20354	20359	ORF 1ab polyprotein	77	GC	23984	23991	spike protein
78	AAT	20568	20582	spike protein	78	AT	24200	24205	spike protein
79	CAA	20850	20859	spike protein	79	TAT	24328	24336	spike protein
80	CAG	22325	22334	spike protein	80	CA	24425	24430	spike protein
81	AT	22356	22361	spike protein	81	GCT	24892	24901	spike protein
82	AT	22453	22460	spike protein	82	GT	26360	26365	spike protein
83	ACA	22686	22694	spike protein	83	GAT	26524	26533	spike protein
84	GA	22734	22739	spike protein	84	CT	26642	26647	spike protein
85	CA	22844	22849	spike protein	85	TG	26711	26716	spike protein
86	AC	23707	23712	spike protein	86	GT	27241	27246	spike protein
87	AT	24331	24336	spike protein	87	AT	27291	27296	spike protein
88	AAT	24489	24500	spike protein	88	AAT	27574	27583	spike protein
89	TG	24560	24565	spike protein	89	T	27848	27853	spike protein
90	TAG	24580	24591	spike protein	90	ATA	27944	27953	spike protein
91	TGT	24615	24626	spike protein	91	GT	28702	28707	envelope protein
92	TG	24926	24931	non-structural protein 3a	92	C	28921	28926	membrane protein
93	AC	24946	24951	non-structural protein 3a	93	TA	29054	29059	membrane protein
94	TC	24989	24994	non-structural protein 3a	94	ATT	29196	29205	membrane protein
95	AC	25104	25109	non-structural protein 3b	95	GC	29462	29467	membrane protein
96	TGT	25241	25249	non-structural protein 3c	96	GCA	29953	29964	nucleocapsid protein
97	ACA	25298	25309	non-structural protein 3c	97	AG	30468	30473	nucleocapsid protein
98	GT	25409	25414	non-structural protein 3c	98	CTT	30571	30579	nucleocapsid protein
99	AGA	25883	25900	non-structural protein 3c	99	AG	30789	30794	nucleocapsid protein
100	ATT	26570	26579	membrane protein	100	CT	31030	31035	NC
101	AC	26832	26837	membrane protein	101	TG	31126	31131	NC
102	AAT	27065	27075	nucleocapsid protein					
103	TTCA	27082	27092	nucleocapsid protein	CV35				
104	AGAT	27301	27313	nucleocapsid protein	S.No	Consensus	Start	End	SSR Location in Gene
105	ACA	27604	27615	nucleocapsid protein	1	CT	27	34	NC
106	AC	27685	27690	nucleocapsid protein	2	TGCG	89	99	NC
107	AC	28095	28100	nucleocapsid protein	3	A	328	333	orf1ab polyprotein
108	ATT	28712	28722	non-structural protein 7b	4	TC	348	353	orf1ab polyprotein
109	A	28787	28792	non-structural protein 7b	5	CT	447	452	orf1ab polyprotein
110	GTG	28804	28813	non-structural protein 7b	6	TG	871	876	orf1ab polyprotein
111	TGT	28839	28848	non-structural protein 7b	7	TG	1019	1024	orf1ab polyprotein
					8	TGGC	1302	1313	orf1ab polyprotein
					9	AC	1451	1456	orf1ab polyprotein
					10	CTT	1517	1526	orf1ab polyprotein
CV03					11	TC	1937	1942	orf1ab polyprotein
S.No	Consensus	Start	End	SSR Location in Gene	12	CT	2089	2094	orf1ab polyprotein
1	GA	182	187	NC	13	TTG	2326	2337	orf1ab polyprotein
2	AT	644	649	polyprotein 1ab	14	AGCA	2556	2566	orf1ab polyprotein
3	CA	846	851	polyprotein 1ab	15	CT	3012	3017	orf1ab polyprotein
4	GTG	1050	1061	polyprotein 1ab	16	TGA	3167	3178	orf1ab polyprotein
5	CTG	1080	1089	polyprotein 1ab	17	CT	3195	3200	orf1ab polyprotein
6	AG	1353	1358	polyprotein 1ab	18	TTG	3371	3380	orf1ab polyprotein
7	GT	1666	1671	polyprotein 1ab	19	CA	3563	3568	orf1ab polyprotein
8	CA	1702	1707	polyprotein 1ab	20	CA	3615	3620	orf1ab polyprotein
9	T	1841	1848	polyprotein 1ab	21	TGG	3944	3952	orf1ab polyprotein
10	TAT	1997	2007	polyprotein 1ab	22	CG	4106	4111	orf1ab polyprotein
11	ATG	2082	2093	polyprotein 1ab	23	CT	4239	4244	orf1ab polyprotein
12	GTG	2941	2951	polyprotein 1ab	24	AC	4250	4255	orf1ab polyprotein
13	T	3668	3673	polyprotein 1ab	25	TAC	5525	5536	orf1ab polyprotein
14	TG	4112	4117	polyprotein 1ab	26	TA	5806	5811	orf1ab polyprotein
15	AG	4703	4708	polyprotein 1ab	27	CT	5918	5923	orf1ab polyprotein
16	GA	4736	4741	polyprotein 1ab	28	GT	6043	6048	orf1ab polyprotein
17	GT	4812	4817	polyprotein 1ab	29	TTCC	6167	6177	orf1ab polyprotein
18	GT	4902	4907	polyprotein 1ab	30	AC	6568	6573	orf1ab polyprotein
19	AC	5027	5032	polyprotein 1ab	31	AC	6665	6670	orf1ab polyprotein
20	CA	5290	5295	polyprotein 1ab	32	TTA	6882	6893	orf1ab polyprotein
21	A	5721	5726	polyprotein 1ab	33	TC	7215	7220	orf1ab polyprotein
22	T	6052	6057	polyprotein 1ab	34	AG	7959	7964	orf1ab polyprotein
23	T	6485	6490	polyprotein 1ab	35	CT	7990	7995	orf1ab polyprotein
24	A	6832	6837	polyprotein 1ab	36	TC	8144	8149	orf1ab polyprotein

25	GA	7466	7471	polyprotein 1ab	37	TGT	8158	8167	orf1ab polyprotein
26	GGT	7545	7554	polyprotein 1ab	38	GA	8203	8208	orf1ab polyprotein
27	TG	7894	7899	polyprotein 1ab	39	GA	9198	9203	orf1ab polyprotein
28	AC	8934	8939	polyprotein 1ab	40	TC	9578	9585	orf1ab polyprotein
29	A	9175	9180	polyprotein 1ab	41	AC	10520	10525	orf1ab polyprotein
30	AC	9258	9263	polyprotein 1ab	42	TG	11341	11346	orf1ab polyprotein
31	CT	9435	9440	polyprotein 1ab	43	GT	11509	11514	orf1ab polyprotein
32	TG	9819	9824	polyprotein 1ab	44	CCTTA	11681	11694	orf1ab polyprotein
33	T	9930	9935	polyprotein 1ab	45	TTTG	12222	12237	orf1ab polyprotein
34	T	9950	9955	polyprotein 1ab	46	TG	12660	12665	orf1ab polyprotein
35	TG	10881	10886	polyprotein 1ab	47	TC	12789	12794	orf1ab polyprotein
36	GA	11573	11578	polyprotein 1ab	48	GT	13461	13466	orf1ab polyprotein
37	TA	11713	11718	polyprotein 1ab	49	GA	14204	14209	orf1ab polyprotein
38	TG	11973	11978	polyprotein 1ab	50	AC	14429	14434	orf1ab polyprotein
39	AG	12021	12026	polyprotein 1ab	51	TG	14557	14562	orf1ab polyprotein
40	TG	12047	12052	polyprotein 1ab	52	TTC	14983	14991	orf1ab polyprotein
41	CATT	13239	13249	polyprotein 1ab	53	TG	15053	15058	orf1ab polyprotein
42	TG	13380	13385	polyprotein 1ab	54	TGT	15071	15081	orf1ab polyprotein
43	TTA	13679	13688	polyprotein 1ab	55	GT	15341	15346	orf1ab polyprotein
44	GTT	13798	13806	polyprotein 1ab	56	TC	15568	15573	orf1ab polyprotein
45	TC	14007	14012	polyprotein 1ab	57	GA	16234	16239	orf1ab polyprotein
46	CT	14284	14289	polyprotein 1ab	58	TA	16324	16329	orf1ab polyprotein
47	TGA	14529	14540	polyprotein 1ab	59	AG	16416	16421	orf1ab polyprotein
48	TTG	14543	14551	polyprotein 1ab	60	TG	16474	16484	orf1ab polyprotein
49	AC	14766	14771	polyprotein 1ab	61	AG	17190	17195	orf1ab polyprotein
50	CT	15185	15190	polyprotein 1ab	62	TG	17411	17416	orf1ab polyprotein
51	TG	15261	15266	polyprotein 1ab	63	TGG	17573	17581	orf1ab polyprotein
52	ATT	15323	15331	polyprotein 1ab	64	TC	17610	17615	orf1ab polyprotein
53	TAA	16164	16175	polyprotein 1ab	65	GCAC	17680	17690	orf1ab polyprotein
54	TC	16475	16485	polyprotein 1ab	66	TC	17996	18001	orf1ab polyprotein
55	GTA	16733	16742	polyprotein 1ab	67	AG	18292	18297	orf1ab polyprotein
56	AC	16757	16762	polyprotein 1ab	68	GC	18667	18672	orf1ab polyprotein
57	TG	16847	16852	polyprotein 1ab	69	AT	18999	19004	orf1ab polyprotein
58	CA	17122	17127	polyprotein 1ab	70	AC	19448	19453	orf1ab polyprotein
59	TA	17754	17759	polyprotein 1ab	71	CA	19522	19527	orf1ab polyprotein
60	TAA	17973	17984	polyprotein 1ab	72	TGC	19689	19698	orf1ab polyprotein
61	GT	18772	18777	polyprotein 1ab	73	TG	19944	19949	orf1ab polyprotein
62	TAC	18849	18857	polyprotein 1ab	74	AT	20168	20173	orf1ab polyprotein
63	TG	19320	19325	polyprotein 1ab	75	TAC	20415	20424	orf1ab polyprotein
64	TG	19661	19666	polyprotein 1ab	76	TA	20603	20608	orf1ab polyprotein
65	AT	19913	19918	polyprotein 1ab	77	AT	21018	21023	orf1ab polyprotein
66	AT	19938	19943	polyprotein 1ab	78	TA	21562	21567	orf1ab polyprotein
67	TA	20173	20178	polyprotein 1ab	79	CT	21606	21613	orf1ab polyprotein
68	AG	20284	20289	polyprotein 1ab	80	TC	21618	21623	orf1ab polyprotein
69	AC	20381	20386	polyprotein 1ab	81	AG	21669	21674	orf1ab polyprotein
70	TA	20646	20651	S	82	TC	21695	21702	orf1ab polyprotein
71	CT	21589	21596	S	83	TGC	22114	22125	spike glycoprotein
72	AT	22509	22514	S	84	AC	22533	22538	spike glycoprotein
73	CA	22740	22747	S	85	TA	22751	22756	spike glycoprotein
74	TGA	23381	23392	S	86	CCT	22934	22942	spike glycoprotein
75	GT	24005	24010	S	87	G	23568	23573	spike glycoprotein
76	ACA	24214	24222	S	88	CG	23821	23826	spike glycoprotein
77	T	24308	24313	S	89	TTG	24057	24065	spike glycoprotein
78	CT	24507	24512	S	90	GTCT	24612	24622	spike glycoprotein
79	TG	24617	24622	S	91	TAC	24760	24771	spike glycoprotein
80	ACA	25264	25275	NC	92	TCA	24866	24878	spike glycoprotein
81	GT	25373	25380	NC	93	GCT	24995	25003	spike glycoprotein
82	TA	25542	25547	NC	94	CA	25084	25089	spike glycoprotein
83	ACA	25548	25558	NC	95	TTCC	25303	25313	spike glycoprotein
84	AGA	25829	25840	NC	96	TA	25628	25633	spike glycoprotein
85	GT	25984	25989	E	97	TG	25673	25678	spike glycoprotein
86	TA	26529	26534	M	98	AG	25920	25925	hypothetical protein
87	CA	26920	26925	N	99	ACT	26034	26045	hypothetical protein
88	GA	27070	27075	N	100	CGT	26470	26481	hypothetical protein
89	GA	27176	27181	N	101	CA	26559	26564	hypothetical protein
90	TTC	27185	27196	N	102	AC	27201	27206	hypothetical protein
91	AC	27601	27606	N	103	T	27946	27951	small membrane protein
92	AC	28008	28013	N	104	TG	27985	27990	small membrane protein
93	TG	28377	28382	NC	105	TG	28019	28024	small membrane protein
94	AC	28479	28484	NC	106	GT	28027	28032	small membrane protein
95	CAT	28741	28750	NC	107	AG	28111	28116	small membrane protein
96	A	29254	29277	NC	108	CT	28155	28160	NC

					109	CT	28186	28191	membrane glycoprotein
					110	CTC	28884	28898	nucleocapsid phosphoprotein
					111	CAA	29899	29910	nucleocapsid phosphoprotein
CV04					112	GA	30335	30340	NC
S.No	Consensus	Start	End	SSR Location in Gene	113	A	30466	30481	NC
1	TC	109	114	NC					
2	GA	182	187	NC					
3	AT	644	649	polyprotein ab	CV36				
4	AG	872	877	polyprotein ab	S.No	Consensus	Start	End	SSR Location in Gene
5	AG	1353	1358	polyprotein ab	1	GCT	15	24	NC
6	GT	1666	1671	polyprotein ab	2	TTA	1014	1022	orf1ab polyprotein
7	CA	1702	1707	polyprotein ab	3	AC	1050	1055	orf1ab polyprotein
8	CG	2053	2058	polyprotein ab	4	GC	1150	1155	orf1ab polyprotein
9	TGA	2088	2097	polyprotein ab	5	GT	1822	1827	orf1ab polyprotein
10	CT	2723	2728	polyprotein ab	6	A	1992	1997	orf1ab polyprotein
11	GAT	2876	2887	polyprotein ab	7	GC	2097	2102	orf1ab polyprotein
12	GTG	2941	2951	polyprotein ab	8	TA	2204	2209	orf1ab polyprotein
13	AG	2987	2992	polyprotein ab	9	TTA	2217	2225	orf1ab polyprotein
14	TGA	3367	3378	polyprotein ab	10	GT	2384	2389	orf1ab polyprotein
15	A	3513	3520	polyprotein ab	11	T	2793	2798	orf1ab polyprotein
16	GCT	3551	3562	polyprotein ab	12	A	3444	3449	orf1ab polyprotein
17	TG	4145	4150	polyprotein ab	13	CG	3678	3683	orf1ab polyprotein
18	GT	4273	4278	polyprotein ab	14	TGT	4188	4196	orf1ab polyprotein
19	GT	4560	4565	polyprotein ab	15	TA	4220	4225	orf1ab polyprotein
20	AG	4771	4778	polyprotein ab	16	TTG	4277	4285	orf1ab polyprotein
21	T	4792	4797	polyprotein ab	17	TAT	4530	4539	orf1ab polyprotein
22	GT	4848	4853	polyprotein ab	18	GC	5032	5037	orf1ab polyprotein
23	GT	4938	4943	polyprotein ab	19	AG	5507	5512	orf1ab polyprotein
24	CA	5326	5336	polyprotein ab	20	GTT	5824	5832	orf1ab polyprotein
25	ACT	6070	6081	polyprotein ab	21	ACTC	6177	6187	orf1ab polyprotein
26	T	6100	6105	polyprotein ab	22	GT	6276	6281	orf1ab polyprotein
27	CA	6716	6721	polyprotein ab	23	GT	6399	6404	orf1ab polyprotein
28	AAT	7204	7213	polyprotein ab	24	AT	6434	6439	orf1ab polyprotein
29	TACA	7740	7754	polyprotein ab	25	TTTGG	6482	6495	orf1ab polyprotein
30	ATT	8109	8120	polyprotein ab	26	T	6567	6572	orf1ab polyprotein
31	CT	8472	8477	polyprotein ab	27	GCA	6684	6692	orf1ab polyprotein
32	TA	8669	8674	polyprotein ab	28	TA	6721	6726	orf1ab polyprotein
33	AC	9306	9311	polyprotein ab	29	T	6745	6750	orf1ab polyprotein
34	TTA	9463	9472	polyprotein ab	30	TA	6761	6766	orf1ab polyprotein
35	CT	9862	9867	polyprotein ab	31	GTTG	6845	6856	orf1ab polyprotein
36	TGT	10270	10280	polyprotein ab	32	TAT	6865	6875	orf1ab polyprotein
37	T	10301	10306	polyprotein ab	33	T	6924	6929	orf1ab polyprotein
38	TG	10929	10934	polyprotein ab	34	AC	7084	7089	orf1ab polyprotein
39	GA	11621	11626	polyprotein ab	35	TA	8146	8151	orf1ab polyprotein
40	TA	11761	11766	polyprotein ab	36	GT	8435	8440	orf1ab polyprotein
41	TG	12021	12026	polyprotein ab	37	AC	8444	8449	orf1ab polyprotein
42	ATTG	12230	12241	polyprotein ab	38	T	8516	8521	orf1ab polyprotein
43	AGTG	13276	13286	polyprotein ab	39	ATTT	8823	8835	orf1ab polyprotein
44	CATT	13287	13297	polyprotein ab	40	TGC	8843	8851	orf1ab polyprotein
45	GTT	13846	13854	polyprotein ab	41	TA	9063	9068	orf1ab polyprotein
46	TTG	14591	14599	polyprotein ab	42	AT	9209	9214	orf1ab polyprotein
47	AC	14814	14819	polyprotein ab	43	TGG	9477	9488	orf1ab polyprotein
48	GT	14891	14896	polyprotein ab	44	TA	9492	9497	orf1ab polyprotein
49	TG	15176	15190	polyprotein ab	45	TTAT	9837	9848	orf1ab polyprotein
50	TG	15309	15314	polyprotein ab	46	GT	9908	9913	orf1ab polyprotein
51	TTA	15368	15377	polyprotein ab	47	CTG	10574	10584	orf1ab polyprotein
52	AAC	16633	16645	polyprotein ab	48	TG	10609	10614	orf1ab polyprotein
53	CA	16670	16675	polyprotein ab	49	GTAC	10875	10886	orf1ab polyprotein
54	GTA	16781	16790	polyprotein ab	50	TGT	11054	11065	orf1ab polyprotein
55	AC	16805	16810	polyprotein ab	51	AT	11211	11216	orf1ab polyprotein
56	TG	16895	16900	polyprotein ab	52	GCT	11955	11963	orf1ab polyprotein
57	AT	17040	17045	polyprotein ab	53	AT	13032	13037	orf1ab polyprotein
58	AT	17130	17135	polyprotein ab	54	AAC	13331	13339	orf1ab polyprotein
59	CA	17170	17175	polyprotein ab	55	AC	13749	13754	orf1ab polyprotein
60	TA	17666	17671	polyprotein ab	56	GTG	13928	13937	orf1ab polyprotein
61	CCA	18219	18228	polyprotein ab	57	T	14242	14247	orf1ab polyprotein
62	TGC	18372	18381	polyprotein ab	58	TG	14313	14318	orf1ab polyprotein
63	CAA	18755	18764	polyprotein ab	59	T	14334	14339	orf1ab polyprotein
64	GT	18820	18825	polyprotein ab	60	TC	14477	14482	orf1ab polyprotein
65	TAC	18897	18905	polyprotein ab	61	TG	14739	14744	orf1ab polyprotein
66	AC	19076	19081	polyprotein ab	62	AG	14872	14877	orf1ab polyprotein
67	TG	19368	19373	polyprotein ab	63	TA	15115	15120	orf1ab polyprotein

68	ACT	19697	19707	polyprotein ab	64	AT	15583	15588	orf1ab polyprotein
69	GT	19708	19715	polyprotein ab	65	AT	15693	15702	orf1ab polyprotein
70	CA	19718	19723	polyprotein ab	66	TG	15739	15744	orf1ab polyprotein
71	GA	19833	19838	polyprotein ab	67	AC	15833	15838	orf1ab polyprotein
72	TCA	20131	20139	polyprotein ab	68	TG	15969	15974	orf1ab polyprotein
73	TA	20221	20226	polyprotein ab	69	AT	16005	16010	orf1ab polyprotein
74	CA	20478	20483	spike protein	70	ATT	16257	16266	orf1ab polyprotein
75	AAG	20581	20589	spike protein	71	AG	16498	16503	orf1ab polyprotein
76	ATT	20747	20755	spike protein	72	TG	16671	16676	orf1ab polyprotein
77	GT	21433	21438	spike protein	73	TG	17439	17449	orf1ab polyprotein
78	AT	22513	22520	spike protein	74	TC	17471	17476	orf1ab polyprotein
79	TA	22775	22782	spike protein	75	TA	17894	17899	orf1ab polyprotein
80	CA	22904	22909	spike protein	76	TA	18240	18245	orf1ab polyprotein
81	GT	23424	23429	spike protein	77	AC	18729	18734	orf1ab polyprotein
82	TGG	23534	23542	spike protein	78	GT	18894	18899	orf1ab polyprotein
83	AC	23767	23772	spike protein	79	TG	18946	18951	orf1ab polyprotein
84	TG	24620	24625	spike protein	80	TA	19208	19213	orf1ab polyprotein
85	TAG	24640	24651	spike protein	81	GT	19547	19552	orf1ab polyprotein
86	TG	24971	24976	putative 3a protein	82	TGT	19582	19593	orf1ab polyprotein
87	AC	24991	24996	putative 3a protein	83	ATG	20516	20525	orf1ab polyprotein
88	TC	25034	25039	putative 3a protein	84	T	20570	20575	orf1ab polyprotein
89	AC	25149	25154	putative 3b protein	85	TAT	21377	21388	spike glycoprotein
90	AG	25190	25195	putative 3b protein	86	TATT	21443	21454	spike glycoprotein
91	GT	25454	25459	non-structural protein 3c	87	TG	22113	22118	spike glycoprotein
92	TA	25847	25852	non-structural protein 3c	88	TGT	22130	22141	spike glycoprotein
93	AGA	25928	25945	non-structural protein 3c	89	TA	22291	22296	spike glycoprotein
94	TCT	26009	26017	E protein	90	GT	22675	22680	spike glycoprotein
95	TA	26628	26633	matrix protein"	91	AC	22864	22869	spike glycoprotein
96	TGG	26790	26799	matrix protein"	92	TAA	24257	24268	spike glycoprotein
97	CA	27019	27024	nucleocapsid protein	93	AT	24310	24315	spike glycoprotein
98	GA	27169	27174	nucleocapsid protein	94	TG	24709	24714	spike glycoprotein
99	AAT	27569	27577	nucleocapsid protein	95	ATG	24746	24756	spike glycoprotein
100	AC	27703	27708	nucleocapsid protein	96	TA	24801	24806	hypothetical protein
101	ACCT	27926	27936	nucleocapsid protein	97	TC	24846	24851	hypothetical protein
102	AC	28110	28115	nucleocapsid protein	98	GT	25067	25072	hypothetical protein
103	TAG	28381	28392	non-structural protein 7a	99	CT	25103	25108	hypothetical protein
104	TG	28479	28484	non-structural protein 7b	100	ATT	25182	25191	hypothetical protein
105	AC	28600	28605	non-structural protein 7b	101	TG	25605	25610	small membrane protein
106	TGT	28833	28842	non-structural protein 7b	102	TA	26360	26367	NC
107	CAT	28843	28852	non-structural protein 7b	103	TA	26381	26386	NC
					104	ATA	26545	26556	nucleocapsid phosphoprotein
					105	TGC	27356	27367	nucleocapsid phosphoprotein
					106	TGA	27677	27685	nucleocapsid phosphoprotein
					107	GTGG	27686	27697	nucleocapsid phosphoprotein
CV05					108	AG	27757	27762	nucleocapsid phosphoprotein
S.No	Consensus	Start	End	SSR Location in Gene	109	T	27874	27879	hypothetical protein
1	TAG	219	227	NC	110	T	27892	27897	hypothetical protein
2	AT	637	642	replicase 1a	111	TG	28037	28042	hypothetical protein
3	AT	651	656	replicase 1a	112	TGC	28640	28652	hypothetical protein
4	CT	797	802	replicase 1a	113	AC	28744	28749	hypothetical protein
5	GAT	1368	1377	replicase 1a	114	AG	28864	28869	hypothetical protein
6	GT	1659	1664	replicase 1a	115	GT	28993	28998	NC
7	GCAA	1805	1815	replicase 1a	116	A	29098	29113	NC
8	GTG	2934	2944	replicase 1a					
9	A	3213	3218	replicase 1a					
10	TC	3236	3241	replicase 1a					
11	GAA	3289	3300	replicase 1a	CV37				
12	TCT	3402	3411	replicase 1a	S.No	Consensus	Start	End	SSR Location in Gene
13	AGA	3414	3422	replicase 1a	1	AC	298	303	nonstructural polyprotein pp1ab
14	T	3612	3617	replicase 1a	2	TTC	626	634	nonstructural polyprotein pp1ab
15	TG	4057	4062	replicase 1a	3	CG	883	888	nonstructural polyprotein pp1ab
16	TA	4709	4714	replicase 1a	4	AG	938	943	nonstructural polyprotein pp1ab
17	GT	4799	4804	replicase 1a	5	TG	1489	1494	nonstructural polyprotein pp1ab
18	TGC	4959	4970	replicase 1a	6	TG	1862	1867	nonstructural polyprotein pp1ab
19	CA	5277	5284	replicase 1a	7	GC	1909	1914	nonstructural polyprotein pp1ab
20	TG	5374	5379	replicase 1a	8	GAA	3079	3090	nonstructural polyprotein pp1ab
21	AAT	6000	6009	replicase 1a	9	GAA	3187	3201	nonstructural polyprotein pp1ab
22	AGTC	6098	6108	replicase 1a	10	TGG	3399	3410	nonstructural polyprotein pp1ab
23	T	6443	6448	replicase 1a	11	TA	4165	4170	nonstructural polyprotein pp1ab
24	GTT	6514	6522	replicase 1a	12	GA	4317	4322	nonstructural polyprotein pp1ab
25	TC	6963	6968	replicase 1a	13	CAAC	4391	4402	nonstructural polyprotein pp1ab
26	GAT	7405	7413	replicase 1a	14	CT	4509	4514	nonstructural polyprotein pp1ab
27	T	7465	7470	replicase 1a	15	CA	4933	4940	nonstructural polyprotein pp1ab

28	GTTTT	7507	7524	replicase 1a	16	CA	5149	5154	nonstructural polyprotein pp1ab
29	TG	7906	7911	replicase 1a	17	GT	5446	5451	nonstructural polyprotein pp1ab
30	T	8233	8238	replicase 1a	18	TG	5554	5564	nonstructural polyprotein pp1ab
31	ATT	8308	8316	replicase 1a	19	ACCA	5940	5952	nonstructural polyprotein pp1ab
32	AC	8891	8896	replicase 1a	20	AC	6290	6295	nonstructural polyprotein pp1ab
33	TG	9776	9781	replicase 1a	21	GT	6683	6688	nonstructural polyprotein pp1ab
34	AC	9917	9922	replicase 1a	22	AT	7185	7190	nonstructural polyprotein pp1ab
35	T	9988	9993	replicase 1a	23	GC	7691	7696	nonstructural polyprotein pp1ab
36	CA	10064	10069	replicase 1a	24	GA	7735	7740	nonstructural polyprotein pp1ab
37	TG	10419	10429	replicase 1a	25	AG	8773	8778	nonstructural polyprotein pp1ab
38	CT	10621	10626	replicase 1a	26	AC	8885	8890	nonstructural polyprotein pp1ab
39	GA	11530	11535	replicase 1a	27	TA	9824	9829	nonstructural polyprotein pp1ab
40	AG	11580	11587	replicase 1a	28	TG	10775	10780	nonstructural polyprotein pp1ab
41	TG	11930	11935	replicase 1a	29	CTG	11162	11171	nonstructural polyprotein pp1ab
42	AG	11978	11983	replicase 1a	30	ATG	11297	11308	nonstructural polyprotein pp1ab
43	ATTG	12139	12150	replicase 1a	31	TG	11475	11485	nonstructural polyprotein pp1ab
44	CA	12189	12194	replicase 1a	32	TGC	11563	11574	nonstructural polyprotein pp1ab
45	TA	12876	12881	replicase 1b	33	CA	12669	12674	nonstructural polyprotein pp1ab
46	GTT	13755	13763	replicase 1b	34	AC	12848	12853	nonstructural polyprotein pp1ab
47	TTG	14500	14508	replicase 1b	35	TG	13075	13080	nonstructural polyprotein pp1ab
48	GT	14800	14805	replicase 1b	36	AC	13093	13100	nonstructural polyprotein pp1ab
49	TG	15085	15090	replicase 1b	37	AT	13708	13713	nonstructural polyprotein pp1ab
50	TG	15218	15223	replicase 1b	38	TGA	13826	13837	nonstructural polyprotein pp1ab
51	TTA	15277	15286	replicase 1b	39	AG	14201	14206	nonstructural polyprotein pp1ab
52	TA	15349	15354	replicase 1b	40	CTT	14687	14695	nonstructural polyprotein pp1ab
53	AC	15865	15870	replicase 1b	41	TG	14758	14763	nonstructural polyprotein pp1ab
54	TTG	16186	16197	replicase 1b	42	CT	15272	15277	nonstructural polyprotein pp1ab
55	GTA	16690	16699	replicase 1b	43	TG	15373	15378	nonstructural polyprotein pp1ab
56	AC	16714	16719	replicase 1b	44	CA	16279	16284	nonstructural polyprotein pp1ab
57	TG	16804	16809	replicase 1b	45	GA	16548	16553	nonstructural polyprotein pp1ab
58	AT	16949	16954	replicase 1b	46	CT	16638	16643	nonstructural polyprotein pp1ab
59	AT	17039	17044	replicase 1b	47	CT	17053	17058	nonstructural polyprotein pp1ab
60	CA	17079	17084	replicase 1b	48	GC	17178	17183	nonstructural polyprotein pp1ab
61	GT	17240	17245	replicase 1b	49	C	17386	17391	nonstructural polyprotein pp1ab
62	TA	17575	17580	replicase 1b	50	CA	17554	17559	nonstructural polyprotein pp1ab
63	TAA	17930	17941	replicase 1b	51	CA	17804	17809	nonstructural polyprotein pp1ab
64	CCA	18128	18137	replicase 1b	52	AC	18042	18047	nonstructural polyprotein pp1ab
65	TGC	18281	18290	replicase 1b	53	TG	18595	18600	nonstructural polyprotein pp1ab
66	TAC	18806	18814	replicase 1b	54	GT	18986	18991	nonstructural polyprotein pp1ab
67	TA	18933	18940	replicase 1b	55	TGTT	19109	19120	nonstructural polyprotein pp1ab
68	TG	19277	19282	replicase 1b	56	TG	19160	19165	nonstructural polyprotein pp1ab
69	TG	19618	19623	replicase 1b	57	TG	20418	20425	nonstructural polyprotein pp1ab
70	CA	19627	19632	replicase 1b	58	TTA	20965	20973	nonstructural polyprotein pp1ab
71	GA	19742	19747	replicase 1b	59	TG	21046	21051	nonstructural polyprotein pp1ab
72	TCA	20040	20048	replicase 1b	60	CAT	21184	21192	nonstructural polyprotein pp1ab
73	TA	20130	20135	replicase 1b	61	G	21604	21609	S protein
74	AT	21635	21640	spike protein	62	ATT	21834	21842	S protein
75	AT	21732	21739	spike protein	63	TG	21886	21891	S protein
76	TA	21994	22001	spike protein	64	GA	22512	22517	S protein
77	AT	22498	22503	spike protein	65	A	22517	22524	S protein
78	T	22557	22562	spike protein	66	T	22569	22575	S protein
79	GT	22643	22648	spike protein	67	TAATTA	22793	22810	S protein
80	CA	23318	23323	spike protein	68	GA	22845	22852	S protein
81	TG	23839	23844	spike protein	69	GT	23060	23065	S protein
82	TG	24055	24060	NC	70	GT	23098	23103	S protein
83	AC	24075	24080	NC	71	AT	23352	23357	S protein
84	AC	24136	24141	NC	72	CA	23717	23722	S protein
85	AG	24177	24182	NC	73	AC	23767	23772	S protein
86	TG	24211	24216	NC	74	GAT	24036	24046	S protein
87	GT	24324	24329	non-structural protein 3b	75	ACA	24252	24263	S protein
88	CTTT	24422	24434	non-structural protein 3b	76	AC	24316	24321	S protein
89	TA	24721	24726	non-structural protein 3b	77	GT	24530	24535	S protein
90	AGA	24798	24809	non-structural protein 3b	78	ATC	24910	24919	S protein
91	GT	24956	24961	envelope protein	79	AT	25061	25066	S protein
92	ATT	25467	25476	membrane protein	80	TGA	25205	25216	S protein
93	AC	25729	25734	membrane protein	81	T	25286	25291	protein X1
94	TTCA	25979	25989	nucleoprotein	82	AT	25601	25606	protein X1
95	GA	26036	26041	nucleoprotein	83	CA	25715	25722	protein X1
96	AAC	26500	26511	nucleoprotein	84	AC	26002	26007	protein X1
97	AC	26582	26587	nucleoprotein	85	CGA	26064	26075	protein X1
98	GT	26717	26722	nucleoprotein	86	CTT	26168	26179	E protein
99	CA	26798	26805	nucleoprotein	87	TG	26232	26237	E protein

100	AAAAGA	26888	26906	nucleoprotein	88	TAT	26358	26372	NC
101	AC	26992	26997	nucleoprotein	89	GT	27338	27343	protein X4
102	TCC	27039	27050	non-structural protein 7	90	CA	27452	27457	protein X4
103	TA	27165	27170	non-structural protein 7	91	TTTGCT	27459	27476	protein X4
					92	C	28157	28162	N protein
					93	GTG	28406	28414	N protein
					94	CAA	28837	28848	N protein
					95	CTG	28871	28879	N protein
CV06					96	CA	29403	29408	NC
S.No	Consensus	Start	End	SSR Location in Gene					
1	TAG	230	238	NC					
2	AT	648	653	replicase					
3	CT	808	813	replicase					
4	GT	1670	1675	replicase	CV38				
5	GCAA	1816	1826	replicase	S.No	Consensus	Start	End	SSR Location in Gene
6	GTG	2945	2955	replicase	1	AC	298	303	orf1ab polyprotein (pp1ab)
7	AGA	2975	2986	replicase	2	TTC	626	634	orf1ab polyprotein (pp1ab)
8	A	3224	3229	replicase	3	CG	883	888	orf1ab polyprotein (pp1ab)
9	TC	3247	3252	replicase	4	AG	938	943	orf1ab polyprotein (pp1ab)
10	GAA	3306	3317	replicase	5	TG	1489	1494	orf1ab polyprotein (pp1ab)
11	AGA	3434	3442	replicase	6	TG	1862	1867	orf1ab polyprotein (pp1ab)
12	T	3632	3637	replicase	7	GC	1909	1914	orf1ab polyprotein (pp1ab)
13	GT	4819	4824	replicase	8	GAA	3079	3090	orf1ab polyprotein (pp1ab)
14	TGC	4979	4990	replicase	9	GAA	3187	3201	orf1ab polyprotein (pp1ab)
15	CA	5297	5304	replicase	10	TGG	3399	3410	orf1ab polyprotein (pp1ab)
16	TG	5394	5399	replicase	11	TA	4165	4170	orf1ab polyprotein (pp1ab)
17	AAT	6020	6029	replicase	12	GA	4317	4322	orf1ab polyprotein (pp1ab)
18	GTT	6534	6542	replicase	13	CAAC	4391	4402	orf1ab polyprotein (pp1ab)
19	CT	6984	6989	replicase	14	CT	4509	4514	orf1ab polyprotein (pp1ab)
20	GAT	7425	7433	replicase	15	CA	4933	4940	orf1ab polyprotein (pp1ab)
21	TG	7926	7931	replicase	16	CA	5149	5154	orf1ab polyprotein (pp1ab)
22	TAT	8040	8048	replicase	17	GT	5446	5451	orf1ab polyprotein (pp1ab)
23	ATT	8328	8336	replicase	18	TG	5554	5564	orf1ab polyprotein (pp1ab)
24	AT	8597	8602	replicase	19	ACCA	5940	5952	orf1ab polyprotein (pp1ab)
25	AC	8911	8916	replicase	20	AC	6290	6295	orf1ab polyprotein (pp1ab)
26	AC	9235	9240	replicase	21	GT	6683	6688	orf1ab polyprotein (pp1ab)
27	TG	9796	9801	replicase	22	AT	7185	7190	orf1ab polyprotein (pp1ab)
28	AC	9937	9942	replicase	23	GC	7691	7696	orf1ab polyprotein (pp1ab)
29	CA	10084	10089	replicase	24	GA	7735	7740	orf1ab polyprotein (pp1ab)
30	GA	11550	11555	replicase	25	AG	8773	8778	orf1ab polyprotein (pp1ab)
31	TG	11950	11955	replicase	26	AC	8885	8890	orf1ab polyprotein (pp1ab)
32	AG	11998	12003	replicase	27	TA	9824	9829	orf1ab polyprotein (pp1ab)
33	CA	12209	12214	replicase	28	TG	10775	10780	orf1ab polyprotein (pp1ab)
34	TA	12896	12901	replicase	29	CTG	11162	11171	orf1ab polyprotein (pp1ab)
35	T	13615	13620	replicase	30	ATG	11297	11308	orf1ab polyprotein (pp1ab)
36	GTT	13775	13783	replicase	31	TG	11475	11485	orf1ab polyprotein (pp1ab)
37	TTG	14520	14528	replicase	32	TGC	11563	11574	orf1ab polyprotein (pp1ab)
38	GT	14820	14825	replicase	33	CA	12669	12674	orf1ab polyprotein (pp1ab)
39	TG	15105	15110	replicase	34	AC	12848	12853	orf1ab polyprotein (pp1ab)
40	TG	15238	15243	replicase	35	TG	13075	13080	orf1ab polyprotein (pp1ab)
41	TTA	15297	15306	replicase	36	AC	13093	13100	orf1ab polyprotein (pp1ab)
42	TA	15369	15374	replicase	37	AT	13708	13713	orf1ab polyprotein (pp1ab)
43	TTG	16206	16217	replicase	38	TGA	13826	13837	orf1ab polyprotein (pp1ab)
44	AAC	16562	16574	replicase	39	AG	14201	14206	orf1ab polyprotein (pp1ab)
45	GTA	16710	16719	replicase	40	CTT	14687	14695	orf1ab polyprotein (pp1ab)
46	AC	16734	16739	replicase	41	TG	14758	14763	orf1ab polyprotein (pp1ab)
47	TG	16824	16829	replicase	42	CT	15272	15277	orf1ab polyprotein (pp1ab)
48	AT	16969	16974	replicase	43	TG	15373	15378	orf1ab polyprotein (pp1ab)
49	AT	17059	17064	replicase	44	CA	16279	16284	orf1ab polyprotein (pp1ab)
50	CA	17099	17104	replicase	45	GA	16548	16553	orf1ab polyprotein (pp1ab)
51	TA	17595	17600	replicase	46	CT	16638	16643	orf1ab polyprotein (pp1ab)
52	CCA	18148	18157	replicase	47	CT	17053	17058	orf1ab polyprotein (pp1ab)
53	TGC	18301	18310	replicase	48	GC	17178	17183	orf1ab polyprotein (pp1ab)
54	GT	18749	18754	replicase	49	C	17386	17391	orf1ab polyprotein (pp1ab)
55	TAC	18826	18834	replicase	50	CA	17554	17559	orf1ab polyprotein (pp1ab)
56	TG	19297	19302	replicase	51	CA	17804	17809	orf1ab polyprotein (pp1ab)
57	TG	19638	19643	replicase	52	AC	18042	18047	orf1ab polyprotein (pp1ab)
58	CA	19647	19652	replicase	53	TG	18595	18600	orf1ab polyprotein (pp1ab)
59	GA	19762	19767	replicase	54	GT	18986	18991	orf1ab polyprotein (pp1ab)
60	TCA	20060	20068	replicase	55	TGTT	19109	19120	orf1ab polyprotein (pp1ab)
61	TA	20150	20155	replicase	56	TG	19160	19165	orf1ab polyprotein (pp1ab)
62	AC	20358	20363	replicase	57	TG	20418	20425	orf1ab polyprotein (pp1ab)
63	A	20368	20373	replicasespike protein,spike p	58	TTA	20965	20973	orf1ab polyprotein (pp1ab)

64	TAG	20491	20501	spike protein	59	TG	21046	21051	orf1ab polyprotein (pp1ab)
65	TAA	21081	21092	spike protein	60	CAT	21184	21192	orf1ab polyprotein (pp1ab)
66	GTTA	21261	21271	spike protein	61	G	21604	21609	E2 glycoprotein precursor
67	AC	21935	21940	spike protein	62	ATT	21834	21842	E2 glycoprotein precursor
68	AT	22330	22335	spike protein	63	TG	21886	21891	E2 glycoprotein precursor
69	AT	22427	22434	spike protein	64	GA	22512	22517	E2 glycoprotein precursor
70	ACA	22660	22668	spike protein	65	A	22517	22524	E2 glycoprotein precursor
71	TA	22689	22696	spike protein	66	T	22569	22575	E2 glycoprotein precursor
72	CA	22818	22823	spike protein	67	TAATTA	22793	22810	E2 glycoprotein precursor
73	AT	22902	22907	spike protein	68	GA	22845	22852	E2 glycoprotein precursor
74	CAA	23679	23688	spike protein	69	GT	23060	23065	E2 glycoprotein precursor
75	CA	24013	24018	spike protein	70	GT	23098	23103	E2 glycoprotein precursor
76	TG	24534	24539	spike protein	71	AT	23352	23357	E2 glycoprotein precursor
77	TG	24937	24942	non-structural protein 3a	72	CA	23717	23722	E2 glycoprotein precursor
78	AC	24957	24962	non-structural protein 3a	73	AC	23767	23772	E2 glycoprotein precursor
79	TC	25000	25005	non-structural protein 3a	74	GAT	24036	24046	E2 glycoprotein precursor
80	AC	25052	25057	NC	75	ACA	24252	24263	E2 glycoprotein precursor
81	AG	25093	25098	NC	76	AC	24316	24321	E2 glycoprotein precursor
82	GT	25357	25362	non-structural protein 3b	77	GT	24530	24535	E2 glycoprotein precursor
83	AGA	25831	25848	non-structural protein 3b	78	ATC	24910	24919	E2 glycoprotein precursor
84	GT	25989	25994	envelope protein	79	AT	25061	25066	E2 glycoprotein precursor
85	GT	26139	26144	membrane protein	80	TGA	25205	25216	E2 glycoprotein precursor
86	ATT	26503	26512	membrane protein	81	T	25286	25291	hypothetical protein sars3a
87	AC	26765	26770	membrane protein	82	AT	25601	25606	hypothetical protein sars3a
88	TTCA	27015	27025	nucleoprotein	83	CA	25715	25722	hypothetical protein sars3a
89	GA	27072	27077	nucleoprotein	84	AC	26002	26007	hypothetical protein sars3a
90	AAC	27536	27547	nucleoprotein	85	CGA	26064	26075	hypothetical protein sars3a
91	AC	27618	27623	nucleoprotein	86	CTT	26168	26179	protein (E)
92	CA	27834	27841	nucleoprotein	87	TG	26232	26237	protein (E)
93	AAAAGA	27924	27942	nucleoprotein	88	TAT	26358	26372	NC
94	AC	28028	28033	nucleoprotein	89	GT	27338	27343	hypothetical protein sars7a
95	TA	28201	28206	non-structural protein 7	90	CA	27452	27457	hypothetical protein sars7a
96	A	28581	28586	NC	91	TTTGCT	27459	27476	hypothetical protein sars7a
					92	C	28157	28162	nucleocapsid protein (N)
CV07					93	GTG	28406	28414	nucleocapsid protein (N)
S.No	Consensus	Start	End	SSR Location in Gene	94	CAA	28837	28848	nucleocapsid protein (N)
1	TG	163	168	NC	95	CTG	28871	28879	nucleocapsid protein (N)
2	TG	245	250	NC	96	CA	29403	29408	NC
3	T	561	566	replicase polyprotein 1ab	97	A	29726	29751	NC
4	AG	612	617	replicase polyprotein 1ab					
5	GTT	1862	1874	replicase polyprotein 1ab					
6	GT	2037	2042	replicase polyprotein 1ab					
7	GA	2263	2268	replicase polyprotein 1ab	CV42				
8	GT	2699	2704	replicase polyprotein 1ab	S.No	Consensus	Start	End	
9	T	3521	3526	replicase polyprotein 1ab	1	AC	283	288	
10	AC	3637	3642	replicase polyprotein 1ab	2	TTC	611	619	
11	TG	3936	3943	replicase polyprotein 1ab	3	CG	868	873	
12	TG	4716	4721	replicase polyprotein 1ab	4	AG	923	928	
13	TGT	4894	4902	replicase polyprotein 1ab	5	TG	1474	1479	
14	TG	4908	4918	replicase polyprotein 1ab	6	TG	1847	1852	
15	TG	4986	4991	replicase polyprotein 1ab	7	T	1889	1894	
16	GACA	5149	5159	replicase polyprotein 1ab	8	GAA	3064	3075	
17	ATG	5912	5921	replicase polyprotein 1ab	9	GAA	3172	3186	
18	T	6073	6078	replicase polyprotein 1ab	10	TGG	3384	3395	
19	T	6096	6102	replicase polyprotein 1ab	11	TA	4150	4155	
20	AT	6296	6301	replicase polyprotein 1ab	12	GA	4302	4307	
21	TG	6481	6486	replicase polyprotein 1ab	13	CAAC	4376	4387	
22	TGCT	6575	6585	replicase polyprotein 1ab	14	CT	4494	4499	
23	AG	7365	7370	replicase polyprotein 1ab	15	CA	4918	4925	
24	TG	7782	7787	replicase polyprotein 1ab	16	CA	5134	5139	
25	TG	7792	7797	replicase polyprotein 1ab	17	GT	5431	5436	
26	TA	7880	7885	replicase polyprotein 1ab	18	TG	5539	5549	
27	GT	8409	8416	replicase polyprotein 1ab	19	ACCA	5925	5937	
28	T	8589	8594	replicase polyprotein 1ab	20	AC	6275	6280	
29	TGT	8656	8664	replicase polyprotein 1ab	21	GT	6668	6673	
30	TG	8826	8831	replicase polyprotein 1ab	22	AT	7170	7175	
31	TGC	8938	8946	replicase polyprotein 1ab	23	GC	7676	7681	
32	TC	8997	9002	replicase polyprotein 1ab	24	GA	7720	7725	
33	AC	9150	9155	replicase polyprotein 1ab	25	AG	8758	8763	
34	CA	9473	9478	replicase polyprotein 1ab	26	AC	8870	8875	
35	TG	9956	9961	replicase polyprotein 1ab	27	TA	9809	9814	
36	TTGC	10226	10236	replicase polyprotein 1ab	28	TG	10760	10765	

37	TCTT	10866	10877	replicase polyprotein 1ab	29	CTG	11147	11156
38	TG	11052	11057	replicase polyprotein 1ab	30	ATG	11282	11293
39	GCT	11375	11386	replicase polyprotein 1ab	31	TG	11460	11470
40	TCG	11562	11573	replicase polyprotein 1ab	32	TGC	11548	11559
41	AC	11985	11990	replicase polyprotein 1ab	33	CA	12654	12659
42	A	12627	12632	replicase polyprotein 1ab	34	AC	12833	12838
43	TG	12646	12651	replicase polyprotein 1ab	35	TG	13060	13065
44	GT	12995	13000	replicase polyprotein 1ab	36	AC	13078	13085
45	GT	13041	13046	replicase polyprotein 1ab	37	AT	13693	13698
46	AC	13421	13426	replicase polyprotein 1ab	38	TGA	13811	13822
47	TG	13539	13544	replicase polyprotein 1ab	39	AG	14186	14191
48	T	13801	13806	replicase polyprotein 1ab	40	CTT	14672	14680
49	AG	13951	13956	replicase polyprotein 1ab	41	TG	14743	14748
50	GTT	13957	13965	replicase polyprotein 1ab	42	CT	15257	15262
51	TAT	14034	14043	replicase polyprotein 1ab	43	TG	15358	15363
52	T	14060	14065	replicase polyprotein 1ab	44	CA	16264	16269
53	GAT	14302	14313	replicase polyprotein 1ab	45	GA	16533	16538
54	AT	14564	14569	replicase polyprotein 1ab	46	CT	16623	16628
55	GT	14852	14857	replicase polyprotein 1ab	47	CT	17038	17043
56	TG	15420	15425	replicase polyprotein 1ab	48	GC	17163	17168
57	CTA	15920	15931	replicase polyprotein 1ab	49	C	17371	17376
58	GT	16166	16171	replicase polyprotein 1ab	50	CA	17539	17544
59	GGA	16180	16189	replicase polyprotein 1ab	51	CA	17789	17794
60	TA	16449	16459	replicase polyprotein 1ab	52	AC	18027	18032
61	AT	17235	17240	replicase polyprotein 1ab	53	TG	18580	18585
62	GT	17546	17551	replicase polyprotein 1ab	54	GT	18971	18976
63	AC	18251	18256	replicase polyprotein 1ab	55	TGTT	19094	19105
64	A	19137	19142	replicase polyprotein 1ab	56	TG	19145	19150
65	TTG	19516	19524	replicase polyprotein 1ab	57	TG	20403	20410
66	TTG	19943	19951	replicase polyprotein 1ab	58	TTA	20950	20958
67	TCA	20260	20268	replicase polyprotein 1ab	59	TG	21031	21036
68	ATT	20348	20357	replicase polyprotein 1ab	60	CAT	21169	21177
69	TGT	20439	20447	replicase polyprotein 1ab	61	G	21589	21594
70	TA	20708	20713	surface glycoprotein	62	ATT	21819	21827
71	TGT	20986	20996	surface glycoprotein	63	TG	21871	21876
72	TTG	21584	21593	surface glycoprotein	64	TAATTA	22778	22795
73	AC	21594	21604	surface glycoprotein	65	GA	22830	22837
74	GT	23317	23322	surface glycoprotein	66	GT	23045	23050
75	TGT	23975	23986	surface glycoprotein	67	GT	23083	23088
76	AT	24363	24368	4a protein	68	AT	23337	23342
77	TA	24663	24668	4b protein	69	AC	23752	23757
78	TGG	24801	24810	envelope protein	70	GAT	24021	24031
79	GT	24831	24836	envelope protein	71	ACA	24237	24248
80	AT	24938	24943	envelope protein	72	AC	24301	24306
81	GACAAAT	24991	25009	,membrane protein	73	GT	24515	24520
82	T	25235	25240	membrane protein	74	ATC	24895	24904
83	T	25663	25668	membrane protein	75	AT	25046	25051
84	TTG	25767	25776	nucleocapsid protein	76	TGA	25190	25201
85	AG	25965	25970	nucleocapsid protein	77	AT	25586	25591
86	ATG	26446	26456	nucleocapsid protein	78	CA	25700	25707
87	CA	26468	26473	nucleocapsid protein	79	AC	25987	25992
88	AG	26943	26948	NC	80	CGA	26049	26060
89	A	27272	27317	NC	81	CTT	26153	26164
					82	TG	26217	26222
					83	TAT	26343	26357
					84	GT	27323	27328
CV08					85	CA	27437	27442
S.No	Consensus	Start	End	SSR Location in Gene	86	TTTGCT	27444	27461
1	ATG	456	470	replicase polyprotein 1ab	87	C	28171	28176
2	T	555	560	replicase polyprotein 1ab	88	GTG	28420	28428
3	TG	642	647	replicase polyprotein 1ab	89	CAA	28851	28862
4	TAA	703	714	replicase polyprotein 1ab	90	CTG	28885	28893
5	GT	1218	1223	replicase polyprotein 1ab	91	CA	29417	29422
6	ACT	1553	1561	replicase polyprotein 1ab				
7	TTA	1623	1631	replicase polyprotein 1ab				
8	TG	1632	1637	replicase polyprotein 1ab				
9	T	1981	1986	replicase polyprotein 1ab				
10	TG	2201	2206	replicase polyprotein 1ab	CV43			
11	TG	2257	2262	replicase polyprotein 1ab	S.No	Consensus	Start	End
12	TAGT	2685	2695	replicase polyprotein 1ab	1	AC	277	282
13	T	2879	2884	replicase polyprotein 1ab	2	TTC	605	613
14	CTTTTT	3408	3425	replicase polyprotein 1ab	3	CG	862	867
15	GT	3825	3830	replicase polyprotein 1ab	4	AG	917	922

16	TTG	4011	4022	replicase polyprotein 1ab	5	TG	1468	1473
17	TA	4071	4076	replicase polyprotein 1ab	6	TG	1841	1846
18	TGA	4564	4575	replicase polyprotein 1ab	7	GC	1888	1893
19	TG	4874	4879	replicase polyprotein 1ab	8	GAA	3058	3069
20	AG	4984	4989	replicase polyprotein 1ab	9	GAA	3166	3180
21	TGT	5071	5082	replicase polyprotein 1ab	10	TGG	3378	3389
22	TTTTA	5434	5447	replicase polyprotein 1ab	11	TA	4144	4149
23	CA	5646	5651	replicase polyprotein 1ab	12	GA	4296	4301
24	GT	6181	6186	replicase polyprotein 1ab	13	CAAC	4370	4381
25	TTA	6209	6222	replicase polyprotein 1ab	14	CT	4488	4493
26	AG	6878	6883	replicase polyprotein 1ab	15	CA	4912	4919
27	TG	7146	7151	replicase polyprotein 1ab	16	CA	5128	5133
28	T	7249	7255	replicase polyprotein 1ab	17	GT	5425	5430
29	TGA	7318	7326	replicase polyprotein 1ab	18	TG	5533	5543
30	T	7393	7399	replicase polyprotein 1ab	19	ACCA	5919	5931
31	T	7597	7602	replicase polyprotein 1ab	20	AC	6269	6274
32	TTG	7716	7724	replicase polyprotein 1ab	21	GT	6662	6667
33	GTT	7928	7939	replicase polyprotein 1ab	22	AT	7164	7169
34	T	8627	8632	replicase polyprotein 1ab	23	GC	7670	7675
35	TGC	8854	8862	replicase polyprotein 1ab	24	GA	7714	7719
36	TATAA	8948	8961	replicase polyprotein 1ab	25	AG	8752	8757
37	GA	9143	9148	replicase polyprotein 1ab	26	AC	8864	8869
38	TG	9149	9154	replicase polyprotein 1ab	27	TGG	9317	9326
39	GGT	9753	9764	replicase polyprotein 1ab	28	TA	9803	9808
40	TA	10242	10247	replicase polyprotein 1ab	29	TG	10754	10759
41	AC	10372	10377	replicase polyprotein 1ab	30	CTG	11141	11150
42	TG	10420	10425	replicase polyprotein 1ab	31	ATG	11276	11287
43	T	10559	10565	replicase polyprotein 1ab	32	TG	11454	11464
44	T	10679	10684	replicase polyprotein 1ab	33	TGC	11542	11553
45	AT	11131	11136	replicase polyprotein 1ab	34	CA	12648	12653
46	TCT	11186	11194	replicase polyprotein 1ab	35	AC	12827	12832
47	GGT	11735	11746	replicase polyprotein 1ab	36	TG	13054	13059
48	TTGG	12312	12323	replicase polyprotein 1ab	37	AC	13072	13079
49	TG	12352	12357	replicase polyprotein 1ab	38	AT	13687	13692
50	GT	12498	12503	replicase polyprotein 1ab	39	TGA	13805	13816
51	TG	13313	13318	replicase polyprotein 1ab	40	AG	14180	14185
52	AC	13478	13485	replicase polyprotein 1ab	41	CTT	14666	14674
53	TTC	13717	13725	replicase polyprotein 1ab	42	TG	14737	14742
54	TC	13826	13831	replicase polyprotein 1ab	43	CT	15251	15256
55	TGCTT	13974	13987	replicase polyprotein 1ab	44	TG	15352	15357
56	TC	14670	14675	replicase polyprotein 1ab	45	CA	16258	16263
57	TA	14722	14727	replicase polyprotein 1ab	46	GA	16527	16532
58	TGT	14955	14965	replicase polyprotein 1ab	47	CT	16617	16622
59	T	15038	15043	replicase polyprotein 1ab	48	CT	17032	17037
60	A	15376	15381	replicase polyprotein 1ab	49	GC	17157	17162
61	AT	15458	15463	replicase polyprotein 1ab	50	C	17365	17370
62	TA	15470	15475	replicase polyprotein 1ab	51	CA	17533	17538
63	AG	15621	15626	replicase polyprotein 1ab	52	CA	17783	17788
64	TTG	16109	16120	replicase polyprotein 1ab	53	AC	18021	18026
65	T	16621	16626	replicase polyprotein 1ab	54	TG	18574	18579
66	GTA	16811	16820	replicase polyprotein 1ab	55	GT	18965	18970
67	T	16957	16962	replicase polyprotein 1ab	56	TGTT	19088	19099
68	CA	17054	17059	replicase polyprotein 1ab	57	TG	19139	19144
69	TG	17356	17361	replicase polyprotein 1ab	58	TG	20397	20404
70	CA	17755	17760	replicase polyprotein 1ab	59	TTA	20944	20952
71	TG	18156	18161	replicase polyprotein 1ab	60	TG	21025	21030
72	AC	18170	18175	replicase polyprotein 1ab	61	CAT	21163	21171
73	T	18295	18301	replicase polyprotein 1ab	62	G	21583	21588
74	A	18570	18576	replicase polyprotein 1ab	63	ATT	21813	21821
75	AATT	19046	19057	replicase polyprotein 1ab	64	TG	21865	21870
76	AT	19063	19068	replicase polyprotein 1ab	65	TAATTA	22772	22789
77	TTG	19423	19431	replicase polyprotein 1ab	66	GA	22824	22831
78	TA	19649	19654	replicase polyprotein 1ab	67	GT	23039	23044
79	T	20014	20019	replicase polyprotein 1ab	68	GT	23077	23082
80	TA	20257	20262	replicase polyprotein 1ab	69	AT	23331	23336
81	TGT	20346	20354	replicase polyprotein 1ab	70	AC	23746	23751
82	GTT	20412	20420	replicase polyprotein 1ab	71	GAT	24015	24025
83	TC	20543	20548	spike protein	72	ACA	24231	24242
84	T	20816	20821	spike protein	73	AC	24295	24300
85	TA	20929	20934	spike protein	74	GT	24509	24514
86	CA	21056	21061	spike protein	75	ATC	24889	24898
87	TGT	21344	21355	spike protein	76	ATC	25001	25010

47	ATGG	14792	14802	ORF1ab polyprotein	52	TG	16345	16350	orf1ab polyprotein
48	CA	15917	15922	ORF1ab polyprotein	53	AGT	16558	16567	orf1ab polyprotein
49	AG	16230	16235	ORF1ab polyprotein	54	TA	16602	16607	orf1ab polyprotein
50	TG	16759	16764	ORF1ab polyprotein	55	TG	16822	16827	orf1ab polyprotein
51	AAC	16852	16860	ORF1ab polyprotein	56	AG	17056	17061	orf1ab polyprotein
52	AT	16869	16876	ORF1ab polyprotein	57	TA	17080	17085	orf1ab polyprotein
53	CATA	16982	16993	ORF1ab polyprotein	58	TG	17277	17282	orf1ab polyprotein
54	GCT	17019	17028	ORF1ab polyprotein	59	TC	18077	18082	orf1ab polyprotein
55	CA	17082	17087	ORF1ab polyprotein	60	AG	18158	18163	orf1ab polyprotein
56	TG	17093	17098	ORF1ab polyprotein	61	TG	18237	18244	orf1ab polyprotein
57	GTA	17420	17429	ORF1ab polyprotein	62	ACC	18535	18546	orf1ab polyprotein
58	CCA	17644	17655	ORF1ab polyprotein	63	TAA	18576	18585	orf1ab polyprotein
59	ACT	18168	18177	ORF1ab polyprotein	64	T	18839	18844	orf1ab polyprotein
60	ATG	18914	18925	ORF1ab polyprotein	65	TA	19013	19018	orf1ab polyprotein
61	CATA	19052	19064	ORF1ab polyprotein	66	A	19101	19106	orf1ab polyprotein
62	TG	19449	19456	ORF1ab polyprotein	67	TA	19638	19643	orf1ab polyprotein
63	CA	19707	19712	ORF1ab polyprotein	68	TG	19807	19812	orf1ab polyprotein
64	GTTT	20606	20617	ORF1ab polyprotein	69	AG	19869	19874	orf1ab polyprotein
65	TG	21030	21035	ORF1ab polyprotein	70	GT	19989	19996	orf1ab polyprotein
66	AC	21444	21449	spike protein	71	T	20202	20207	orf1ab polyprotein
67	AT	21531	21536	spike protein	72	TA	20439	20444	orf1ab polyprotein
68	TGAC	21556	21567	spike protein	73	CTGTT	20547	20560	orf1ab polyprotein
69	GT	21640	21645	spike protein	74	AT	20854	20859	orf1ab polyprotein
70	CA	22161	22170	spike protein	75	ATTT	21090	21101	orf1ab polyprotein
71	ACT	23136	23146	spike protein	76	TA	21398	21403	orf1ab polyprotein
72	GA	23148	23153	spike protein	77	TC	21533	21538	orf1ab polyprotein
73	TTG	23211	23222	spike protein	78	A	22011	22016	spike glycoprotein
74	TTA	23281	23292	spike protein	79	AG	22503	22508	spike glycoprotein
75	GCT	23963	23974	spike protein	80	TA	22578	22583	spike glycoprotein
76	TCT	24249	24259	spike protein	81	T	22792	22797	spike glycoprotein
77	GT	24424	24429	spike protein	82	CT	22827	22832	spike glycoprotein
78	TG	25030	25035	spike protein	83	AT	22946	22951	spike glycoprotein
79	TG	25404	25409	ORF3 protein	84	ATT	23129	23138	spike glycoprotein
80	GA	27641	27646	nucleocapsid protein	85	GT	23390	23395	spike glycoprotein
81	AT	28149	28154	NC	86	TA	23567	23572	spike glycoprotein
82	A	28310	28326	NC	87	GCTT	23840	23852	spike glycoprotein
					88	TC	24533	24538	spike glycoprotein
					89	GT	24881	24886	spike glycoprotein
					90	TG	25507	25512	spike glycoprotein
					91	CT	25755	25760	hypothetical protein
CV11					92	TTG	26575	26584	hypothetical protein
S.No	Consensus	Start	End	SSR Location in Gene	93	T	26645	26650	hypothetical protein
1	TGT	884	894	ORF1ab polyprotein	94	GGT	26873	26881	hypothetical protein
2	GT	1088	1093	ORF1ab polyprotein	95	AAT	26920	26929	hypothetical protein
3	ACA	1306	1317	ORF1ab polyprotein	96	TAT	27141	27152	hypothetical protein
4	GC	1477	1482	ORF1ab polyprotein	97	TTG	27245	27254	hypothetical protein
5	TTG	1669	1677	ORF1ab polyprotein	98	CA	27434	27439	hypothetical protein
6	GCTT	1895	1905	ORF1ab polyprotein	99	T	27781	27786	small membrane protein
7	GTG	1972	1980	ORF1ab polyprotein	100	GT	27821	27826	small membrane protein
8	CG	2773	2778	ORF1ab polyprotein	101	TG	27854	27859	small membrane protein
9	TGT	2840	2851	ORF1ab polyprotein	102	TACT	28082	28092	membrane glycoprotein
10	GTG	2932	2943	ORF1ab polyprotein	103	CAG	28760	28770	nucleocapsid phosphoprotein
11	TTG	3274	3286	ORF1ab polyprotein	104	A	29437	29442	nucleocapsid phosphoprotein
12	CCA	3633	3644	ORF1ab polyprotein	105	CTT	29829	29837	nucleocapsid phosphoprotein
13	GT	4588	4593	ORF1ab polyprotein	106	A	30271	30286	NC
14	AC	4615	4620	ORF1ab polyprotein					
15	GT	4675	4680	ORF1ab polyprotein					
16	GT	4991	4996	ORF1ab polyprotein					
17	GT	5075	5080	ORF1ab polyprotein					
18	TGT	5567	5579	ORF1ab polyprotein	CV46				
19	GC	5789	5794	ORF1ab polyprotein	S.No	Consensus	Start	End	SSR Location in Gene
20	TG	6027	6032	ORF1ab polyprotein	1	AT	18	25	NC
21	TTA	6234	6243	ORF1ab polyprotein	2	GT	312	317	NC
22	GTT	6378	6389	ORF1ab polyprotein	3	TG	349	354	NC
23	GT	6854	6866	ORF1ab polyprotein	4	C	371	376	NC
24	TG	6911	6916	ORF1ab polyprotein	5	TG	726	733	ORF1ab polyprotein
25	TG	7323	7328	ORF1ab polyprotein	6	TC	836	841	ORF1ab polyprotein
26	CT	7386	7391	ORF1ab polyprotein	7	TGT	1203	1214	ORF1ab polyprotein
27	TG	7626	7631	ORF1ab polyprotein	8	CA	1434	1439	ORF1ab polyprotein
28	TGA	7820	7828	ORF1ab polyprotein	9	ACC	2589	2597	ORF1ab polyprotein
29	CT	7929	7934	ORF1ab polyprotein	10	CT	2716	2721	ORF1ab polyprotein
30	TC	8042	8047	ORF1ab polyprotein	11	TG	2738	2743	ORF1ab polyprotein
31	GT	8202	8207	ORF1ab polyprotein	12	AAG	3437	3445	ORF1ab polyprotein
					13	TG	3583	3588	ORF1ab polyprotein

62	TA	17713	17722	orf1ab polyprotein	13	AAG	2268	2279	ORF 1ab polyprotein
63	A	17851	17856	orf1ab polyprotein	14	AT	2383	2388	ORF 1ab polyprotein
64	AC	18177	18182	orf1ab polyprotein	15	GT	2405	2410	ORF 1ab polyprotein
65	CA	18251	18256	orf1ab polyprotein	16	TG	2590	2595	ORF 1ab polyprotein
66	ATG	18312	18323	orf1ab polyprotein	17	A	2867	2872	ORF 1ab polyprotein
67	GT	18374	18379	orf1ab polyprotein	18	AAG	3003	3014	ORF 1ab polyprotein
68	GT	18878	18883	orf1ab polyprotein	19	TGTA	3296	3306	ORF 1ab polyprotein
69	AC	19356	19366	orf1ab polyprotein	20	TTA	3516	3524	ORF 1ab polyprotein
70	TAC	19735	19746	orf1ab polyprotein	21	GT	4182	4187	ORF 1ab polyprotein
71	TG	19749	19754	orf1ab polyprotein	22	AG	4205	4210	ORF 1ab polyprotein
72	TA	20261	20266	orf1ab polyprotein	23	GT	4598	4603	ORF 1ab polyprotein
73	TTA	20352	20360	orf1ab polyprotein	24	T	4835	4840	ORF 1ab polyprotein
74	GT	20512	20517	spike glycoprotein	25	AG	5056	5061	ORF 1ab polyprotein
75	T	20558	20563	spike glycoprotein	26	TAT	5416	5428	ORF 1ab polyprotein
76	GT	20687	20692	spike glycoprotein	27	CT	5808	5813	ORF 1ab polyprotein
77	TA	21902	21907	spike glycoprotein	28	T	5939	5944	ORF 1ab polyprotein
78	AT	22251	22256	spike glycoprotein	29	TG	6088	6093	ORF 1ab polyprotein
79	AC	23090	23097	spike glycoprotein	30	GT	6468	6473	ORF 1ab polyprotein
80	GT	23124	23129	spike glycoprotein	31	CAG	6795	6803	ORF 1ab polyprotein
81	T	23215	23220	spike glycoprotein	32	GT	7191	7200	ORF 1ab polyprotein
82	GAG	23488	23496	spike glycoprotein	33	TAGA	7209	7219	ORF 1ab polyprotein
83	TGAC	23549	23559	spike glycoprotein	34	AAG	7244	7252	ORF 1ab polyprotein
84	TTA	23693	23704	spike glycoprotein	35	GTT	7541	7549	ORF 1ab polyprotein
85	TG	23768	23773	spike glycoprotein	36	CAG	7668	7677	ORF 1ab polyprotein
86	GTT	24086	24095	hypothetical protein	37	GT	7762	7767	ORF 1ab polyprotein
87	TAT	24113	24125	hypothetical protein	38	TA	7914	7919	ORF 1ab polyprotein
88	TTG	24157	24168	hypothetical protein	39	CG	7958	7963	ORF 1ab polyprotein
89	TG	24266	24271	hypothetical protein	40	TGG	8008	8017	ORF 1ab polyprotein
90	CT	24310	24315	hypothetical protein	41	GT	8052	8057	ORF 1ab polyprotein
91	CT	24420	24425	hypothetical protein	42	AC	8736	8741	ORF 1ab polyprotein
92	TATT	24455	24470	hypothetical protein	43	AC	8871	8876	ORF 1ab polyprotein
93	AC	24472	24477	hypothetical protein	44	TGA	9652	9660	ORF 1ab polyprotein
94	AAACT	24517	24531	hypothetical protein	45	AT	10504	10509	ORF 1ab polyprotein
95	TCT	26676	26686	hypothetical protein	46	AG	10741	10746	ORF 1ab polyprotein
96	T	26804	26809	hypothetical protein	47	TG	10830	10835	ORF 1ab polyprotein
97	T	26868	26874	hypothetical protein	48	GA	11057	11062	ORF 1ab polyprotein
98	A	27150	27164	NC	49	AGA	11100	11108	ORF 1ab polyprotein
					50	CT	11133	11138	ORF 1ab polyprotein
					51	TG	11501	11506	ORF 1ab polyprotein
					52	AT	11884	11889	ORF 1ab polyprotein
CV14					53	CTG	11949	11960	ORF 1ab polyprotein
S.No	Consensus	Start	End	SSR Location in Gene	54	CG	12327	12332	ORF 1ab polyprotein
1	CA	92	97	NC	55	TG	12640	12645	ORF 1ab polyprotein
2	TG	104	109	NC	56	A	13012	13017	ORF 1ab polyprotein
3	TG	246	251	NC	57	GT	13340	13345	ORF 1ab polyprotein
4	GTG	450	459	ORF1	58	TA	13669	13674	ORF 1ab polyprotein
5	GGT	613	623	ORF1	59	GT	14021	14026	ORF 1ab polyprotein
6	CATTA	818	831	ORF1	60	ATGG	14129	14139	ORF 1ab polyprotein
7	TTG	1738	1746	ORF1	61	CA	14472	14481	ORF 1ab polyprotein
8	TA	2235	2240	ORF1	62	TG	14634	14639	ORF 1ab polyprotein
9	TGA	2279	2290	ORF1	63	AGA	14748	14756	ORF 1ab polyprotein
10	CA	2712	2717	ORF1	64	GA	14914	14919	ORF 1ab polyprotein
11	TG	2793	2798	ORF1	65	GT	15149	15165	ORF 1ab polyprotein
12	AAG	2970	2978	ORF1	66	T	16208	16213	ORF 1ab polyprotein
13	TGT	3518	3526	ORF1	67	AT	16247	16252	ORF 1ab polyprotein
14	CA	3924	3929	ORF1	68	AT	16442	16447	ORF 1ab polyprotein
15	TG	4019	4028	ORF1	69	AG	16589	16596	ORF 1ab polyprotein
16	TGG	4292	4300	ORF1	70	C	16996	17001	ORF 1ab polyprotein
17	AGC	4456	4465	ORF1	71	TA	17017	17022	ORF 1ab polyprotein
18	TG	4587	4592	ORF1	72	GTGG	17216	17227	ORF 1ab polyprotein
19	TG	4977	4982	ORF1	73	TG	17503	17508	ORF 1ab polyprotein
20	TTG	5103	5118	ORF1	74	CTG	17621	17629	ORF 1ab polyprotein
21	AC	5191	5196	ORF1	75	TG	18068	18073	ORF 1ab polyprotein
22	GTT	5220	5228	ORF1	76	T	18286	18291	ORF 1ab polyprotein
23	TG	5301	5306	ORF1	77	AG	18790	18795	ORF 1ab polyprotein
24	A	5316	5321	ORF1	78	TG	18866	18871	ORF 1ab polyprotein
25	CA	5433	5438	ORF1	79	TA	19298	19303	ORF 1ab polyprotein
26	TTA	5884	5892	ORF1	80	GT	19613	19618	ORF 1ab polyprotein
27	GT	5953	5958	ORF1	81	TG	19781	19786	ORF 1ab polyprotein
28	AC	6606	6615	ORF1	82	TG	19933	19938	ORF 1ab polyprotein
29	TAT	6726	6736	ORF1	83	TC	20097	20102	ORF 1ab polyprotein
30	TTG	6829	6837	ORF1	84	A	20406	20411	ORF 1ab polyprotein
31	TC	7509	7514	ORF1					

32	TCTG	8130	8142	Orf1ab					80	TG	20489	20494	spike glycoprotein
33	TG	8483	8488	Orf1ab					81	GT	20784	20789	spike glycoprotein
34	TTG	8725	8736	Orf1ab					82	TCA	20991	21001	spike glycoprotein
35	TG	8901	8906	Orf1ab					83	GA	21498	21503	spike glycoprotein
36	T	9284	9289	Orf1ab					84	CT	21688	21693	spike glycoprotein
37	TTG	9334	9344	Orf1ab					85	GCT	21725	21736	spike glycoprotein
38	GT	9422	9427	Orf1ab					86	T	22239	22244	spike glycoprotein
39	TA	9595	9602	Orf1ab					87	CG	22309	22314	spike glycoprotein
40	TGT	9605	9615	Orf1ab					88	TC	22905	22910	spike glycoprotein
41	AAT	9882	9890	Orf1ab					89	AC	23492	23497	membrane protein
42	CTT	9934	9943	Orf1ab					90	AC	23806	23811	membrane protein
43	TA	10539	10544	Orf1ab					91	GT	24269	24279	NC
44	TG	10640	10645	Orf1ab					92	GCT	24691	24702	nucleocapsid phosphoprotein
45	GT	10714	10719	Orf1ab					93	GA	24776	24781	nucleocapsid phosphoprotein
46	TA	11061	11066	Orf1ab					94	TG	25970	25975	nonstructural protein
47	AT	11603	11608	Orf1ab					95	AG	26224	26229	nonstructural protein
48	A	12155	12160	Orf1ab					96	A	26537	26552	NC
49	ATA	12664	12675	Orf1ab									
50	AC	12850	12855	Orf1ab									
51	TG	13039	13044	Orf1ab									
52	TA	13127	13132	Orf1ab									
					CV57								
					S.No	Consensus	Start	End					SSR Location in Gene
53	T	13331	13336	Orf1ab		1 TA	20	31					NC
54	TA	13549	13559	Orf1ab		2 TG	93	98					NC
55	GA	13560	13565	Orf1ab		3 GTG	105	114					NC
56	CA	13650	13655	Orf1ab		4 AC	706	711					orf1ab polyprotein
57	TGC	13730	13739	Orf1ab		5 TGT	1086	1095					orf1ab polyprotein
58	TC	13750	13755	Orf1ab		6 GT	1463	1468					orf1ab polyprotein
59	TA	13756	13761	Orf1ab		7 TGT	1674	1685					orf1ab polyprotein
60	TGT	14197	14206	Orf1ab		8 TTG	1970	1981					orf1ab polyprotein
61	GTT	14707	14719	Orf1ab		9 GT	2105	2110					orf1ab polyprotein
62	TGA	15576	15585	Orf1ab		10 TGT	2265	2279					orf1ab polyprotein
63	TG	15592	15597	Orf1ab		11 TGA	2409	2419					orf1ab polyprotein
64	TAT	15657	15667	Orf1ab		12 GA	2493	2498					orf1ab polyprotein
65	AC	15748	15753	Orf1ab		13 TC	2640	2645					orf1ab polyprotein
66	TA	15962	15967	Orf1ab		14 GAT	2701	2712					orf1ab polyprotein
67	TG	16243	16248	Orf1ab		15 GAT	2728	2739					orf1ab polyprotein
68	TA	16374	16379	Orf1ab		16 ATG	3032	3042					orf1ab polyprotein
69	TC	16591	16596	Orf1ab		17 AT	3135	3140					orf1ab polyprotein
70	GT	16722	16727	Orf1ab		18 TGA	3250	3260					orf1ab polyprotein
71	TG	17046	17051	Orf1ab		19 GA	4271	4276					orf1ab polyprotein
72	TTG	17205	17216	Orf1ab		20 T	4330	4335					orf1ab polyprotein
73	GT	17322	17327	Orf1ab		21 TGT	4476	4487					orf1ab polyprotein
74	TA	17728	17733	Orf1ab		22 GT	4992	4997					orf1ab polyprotein
75	GT	18023	18028	Orf1ab		23 TTA	5089	5100					orf1ab polyprotein
76	AAG	18132	18140	Orf1ab		24 AT	5181	5186					orf1ab polyprotein
77	AT	18649	18654	Orf1ab		25 TG	5384	5394					orf1ab polyprotein
78	AAT	18767	18778	Orf1ab		26 GT	5496	5501					orf1ab polyprotein
79	TG	19244	19249	Orf1ab		27 TGT	5997	6007					orf1ab polyprotein
80	TGGA	19254	19266	Orf1ab		28 ATT	6028	6039					orf1ab polyprotein
81	TA	19488	19493	Orf1ab		29 TTTG	6547	6557					orf1ab polyprotein
82	GT	19706	19711	Orf1ab		30 GT	6680	6685					orf1ab polyprotein
83	TG	19976	19981	Orf1ab		31 TGT	6783	6791					orf1ab polyprotein
84	TG	20495	20500	Orf1ab		32 AC	6983	6988					orf1ab polyprotein
85	GTAAAT	20510	20527	Orf1ab		33 TGT	6996	7007					orf1ab polyprotein
86	TA	20637	20642	Orf1ab		34 CT	7649	7654					orf1ab polyprotein
87	TA	21135	21140	Orf1ab		35 CA	7679	7684					orf1ab polyprotein
88	CA	21645	21650	ns2		36 TGTT	7713	7729					orf1ab polyprotein
89	GTT	22128	22139	ns2		37 GA	7842	7847					orf1ab polyprotein
90	ATG	22185	22196	ns2		38 ACA	8622	8637					orf1ab polyprotein
91	T	22646	22651	hemagglutinin-esterase		39 GT	8834	8839					orf1ab polyprotein
92	AT	22872	22877	hemagglutinin-esterase		40 T	9101	9106					orf1ab polyprotein
93	ATT	22901	22912	hemagglutinin-esterase		41 TA	9295	9300					orf1ab polyprotein
94	TA	23378	23383	hemagglutinin-esterase		42 GT	9339	9344					orf1ab polyprotein
95	CT	23444	23449	hemagglutinin-esterase		43 TG	9498	9505					orf1ab polyprotein
96	CTG	23471	23479	hemagglutinin-esterase		44 TG	9596	9601					orf1ab polyprotein
97	TG	23506	23511	hemagglutinin-esterase		45 AT	9690	9695					orf1ab polyprotein
98	GTT	23575	23585	hemagglutinin-esterase		46 GCT	9826	9837					orf1ab polyprotein
99	TCC	23738	23746	spike surface glycoprotein		47 GCT	10279	10290					orf1ab polyprotein
100	GT	23806	23811	spike surface glycoprotein		48 AC	10526	10531					orf1ab polyprotein
101	TA	24235	24240	spike surface glycoprotein		49 AAC	11151	11161					orf1ab polyprotein
102	TGT	24503	24512	spike surface glycoprotein		50 TA	11258	11263					orf1ab polyprotein
103	AT	24798	24803	spike surface glycoprotein		51 TG	11845	11850					orf1ab polyprotein

104	GT	25136	25141	spike surface glycoprotein	52	CA	12068	12073	orf1ab polyprotein
105	AGT	25865	25874	spike surface glycoprotein	53	GT	12152	12161	orf1ab polyprotein
106	TG	25881	25886	spike surface glycoprotein	54	GT	12302	12307	orf1ab polyprotein
107	TG	26457	26462	spike surface glycoprotein	55	ACA	12380	12389	orf1ab polyprotein
108	CAG	26566	26577	spike surface glycoprotein	56	TTGG	13221	13232	orf1ab polyprotein
109	CT	26790	26795	spike surface glycoprotein	57	AC	13304	13309	orf1ab polyprotein
110	ATCAT	27034	27048	spike surface glycoprotein	58	AT	13567	13574	orf1ab polyprotein
111	TAC	27222	27230	spike surface glycoprotein	59	AC	13823	13828	orf1ab polyprotein
112	TGT	27254	27265	spike surface glycoprotein	60	TA	14034	14039	orf1ab polyprotein
113	TA	27405	27410	spike surface glycoprotein	61	GT	14041	14046	orf1ab polyprotein
114	TG	28140	28145	envelope protein	62	GT	14179	14191	orf1ab polyprotein
115	AC	28914	28919	membrane protein	63	TTG	14241	14251	orf1ab polyprotein
116	AG	29941	29946	nucleocapsid protein	64	AC	14283	14288	orf1ab polyprotein
117	TGG	29963	29971	nucleocapsid protein	65	TG	15118	15123	orf1ab polyprotein
118	CAA	30219	30227	nucleocapsid protein	66	GTT	15202	15212	orf1ab polyprotein
119	AG	30348	30353	nucleocapsid protein	67	AT	15230	15235	orf1ab polyprotein
120	CT	30487	30492	NC	68	T	15805	15810	orf1ab polyprotein
121	A	30712	30741	NC	69	GACG	15983	15994	orf1ab polyprotein
					70	AT	16630	16635	orf1ab polyprotein
					71	T	16811	16816	orf1ab polyprotein
					72	TC	16850	16855	orf1ab polyprotein
CV32					73	TTA	17328	17337	orf1ab polyprotein
S.No	Consensus	Start	End	SSR Location in Gene					
1	TG	103	112	NC	74	TA	17574	17579	orf1ab polyprotein
2	TC	153	158	NC	75	TAA	17705	17716	orf1ab polyprotein
3	CTA	630	638	orf1ab polyprotein	76	AATT	18142	18153	orf1ab polyprotein
4	T	652	657	orf1ab polyprotein	77	AG	19049	19054	orf1ab polyprotein
5	AG	733	738	orf1ab polyprotein	78	CTT	19171	19179	orf1ab polyprotein
6	TGA	766	777	orf1ab polyprotein	79	TA	19257	19262	orf1ab polyprotein
7	TA	1240	1247	orf1ab polyprotein	80	AG	19437	19442	orf1ab polyprotein
8	TA	1519	1524	orf1ab polyprotein	81	CA	19815	19820	spike glycoprotein
9	A	1774	1779	orf1ab polyprotein	82	AG	20039	20044	spike glycoprotein
10	T	1852	1857	orf1ab polyprotein	83	AC	20341	20346	spike glycoprotein
11	TA	2006	2011	orf1ab polyprotein	84	TGGG	20424	20435	spike glycoprotein
12	T	2236	2242	orf1ab polyprotein	85	T	20492	20497	spike glycoprotein
13	TTA	2246	2254	orf1ab polyprotein	86	GT	20827	20832	spike glycoprotein
14	GT	2257	2262	orf1ab polyprotein	87	AC	21207	21212	spike glycoprotein
15	T	2407	2413	orf1ab polyprotein	88	CAA	21219	21227	spike glycoprotein
16	A	2514	2519	orf1ab polyprotein	89	GT	22234	22239	spike glycoprotein
17	TTG	2790	2801	orf1ab polyprotein	90	CT	22679	22684	spike glycoprotein
18	T	3965	3971	orf1ab polyprotein	91	CAA	22756	22770	spike glycoprotein
19	A	4094	4100	orf1ab polyprotein	92	TAT	23281	23294	membrane protein
20	TGG	4384	4392	orf1ab polyprotein	93	GAA	24160	24168	nonstructural protein
21	A	4424	4429	orf1ab polyprotein	94	TTG	25788	25799	nonstructural protein
22	TAA	4717	4728	orf1ab polyprotein	95	TGC	25859	25867	nonstructural protein
23	T	4851	4857	orf1ab polyprotein	96	AG	26068	26073	nonstructural protein
24	TA	5063	5068	orf1ab polyprotein	97	A	26381	26396	NC
25	T	5401	5406	orf1ab polyprotein					
26	T	5444	5450	orf1ab polyprotein					
27	A	6002	6007	orf1ab polyprotein	CV58				
28	T	6091	6096	orf1ab polyprotein	S.No	Consensus	Start	End	SSR Location in Gene
29	TTG	6503	6512	orf1ab polyprotein	1	GTTT	576	591	NC
30	AT	6778	6783	orf1ab polyprotein	2	A	730	735	NC
31	T	6898	6903	orf1ab polyprotein	3	AG	874	879	polyprotein 1ab
32	T	6960	6965	orf1ab polyprotein	4	GA	1150	1157	polyprotein 1ab
33	TA	7048	7057	orf1ab polyprotein	5	ACT	1261	1272	polyprotein 1ab
34	T	7102	7107	orf1ab polyprotein	6	T	1969	1974	polyprotein 1ab
35	TA	7109	7114	orf1ab polyprotein	7	T	2004	2009	polyprotein 1ab
36	TA	7583	7588	orf1ab polyprotein	8	T	2148	2153	polyprotein 1ab
37	GAT	7973	7984	orf1ab polyprotein	9	ATT	2715	2723	polyprotein 1ab
38	AG	8062	8067	orf1ab polyprotein	10	ACT	2754	2765	polyprotein 1ab
39	TATGTT	8194	8212	orf1ab polyprotein	11	T	2938	2944	polyprotein 1ab
40	AG	8288	8293	orf1ab polyprotein	12	TG	3131	3136	polyprotein 1ab
41	A	8617	8623	orf1ab polyprotein	13	AT	3266	3271	polyprotein 1ab
42	TA	8739	8749	orf1ab polyprotein	14	T	3352	3357	polyprotein 1ab
43	T	8750	8755	orf1ab polyprotein	15	TGG	3366	3375	polyprotein 1ab
44	T	9073	9078	orf1ab polyprotein	16	TGG	3387	3398	polyprotein 1ab
45	T	9515	9520	orf1ab polyprotein	17	GT	3452	3457	polyprotein 1ab
46	T	9606	9611	orf1ab polyprotein	18	T	3459	3464	polyprotein 1ab
47	TGT	9670	9680	orf1ab polyprotein	19	TA	3734	3739	polyprotein 1ab
48	T	10198	10203	orf1ab polyprotein	20	GT	4052	4057	polyprotein 1ab
49	T	10624	10629	orf1ab polyprotein	21	G	4256	4261	polyprotein 1ab
50	TTA	10654	10663	orf1ab polyprotein	22	T	4720	4727	polyprotein 1ab

51	TA	10686	10691	orf1ab polyprotein	23	TG	4885	4890	polyprotein 1ab
52	TA	11013	11018	orf1ab polyprotein	24	TG	5178	5189	polyprotein 1ab
53	TA	11321	11326	orf1ab polyprotein	25	GT	5217	5222	polyprotein 1ab
54	T	11520	11525	orf1ab polyprotein	26	GT	5568	5575	polyprotein 1ab
55	GTT	11686	11695	orf1ab polyprotein	27	T	5829	5834	polyprotein 1ab
56	AT	11697	11702	orf1ab polyprotein	28	CAAT	5874	5884	polyprotein 1ab
57	TC	11790	11795	orf1ab polyprotein	29	TG	5924	5929	polyprotein 1ab
58	TGT	12007	12017	orf1ab polyprotein	30	TA	5959	5964	polyprotein 1ab
59	GTA	12933	12944	orf1ab polyprotein	31	GT	6463	6468	polyprotein 1ab
60	TA	13253	13258	orf1ab polyprotein	32	T	6637	6642	polyprotein 1ab
61	GA	13531	13536	orf1ab polyprotein	33	GA	6762	6767	polyprotein 1ab
62	T	13591	13596	orf1ab polyprotein	34	TG	7158	7165	polyprotein 1ab
63	TG	14000	14005	orf1ab polyprotein	35	T	7238	7243	polyprotein 1ab
64	AT	14093	14100	orf1ab polyprotein	36	AG	7281	7286	polyprotein 1ab
65	A	14101	14106	orf1ab polyprotein	37	GA	7350	7355	polyprotein 1ab
66	GTTT	14580	14590	orf1ab polyprotein	38	T	7705	7710	polyprotein 1ab
67	AC	14642	14649	orf1ab polyprotein	39	GTT	7723	7734	polyprotein 1ab
68	T	14880	14885	orf1ab polyprotein	40	T	8105	8110	polyprotein 1ab
69	TG	15566	15571	orf1ab polyprotein	41	T	8500	8505	polyprotein 1ab
70	AT	15647	15652	orf1ab polyprotein	42	T	8549	8554	polyprotein 1ab
71	TGA	15836	15845	orf1ab polyprotein	43	TG	8906	8911	polyprotein 1ab
72	TA	15886	15891	orf1ab polyprotein	44	TGT	8936	8944	polyprotein 1ab
73	GTT	16085	16095	orf1ab polyprotein	45	TA	8994	9003	polyprotein 1ab
74	AT	16221	16226	orf1ab polyprotein	46	TA	9021	9026	polyprotein 1ab
75	A	16227	16233	orf1ab polyprotein	47	T	9250	9255	polyprotein 1ab
76	CATT	16591	16601	orf1ab polyprotein	48	T	9976	9981	polyprotein 1ab
77	TA	16663	16668	orf1ab polyprotein	49	GT	10064	10069	polyprotein 1ab
78	GT	16982	16987	orf1ab polyprotein	50	TGA	10181	10191	polyprotein 1ab
79	TG	17306	17311	orf1ab polyprotein	51	GT	10337	10342	polyprotein 1ab
80	TTG	17465	17479	orf1ab polyprotein	52	TTG	10440	10449	polyprotein 1ab
81	TA	17546	17551	orf1ab polyprotein	53	GA	10547	10552	polyprotein 1ab
82	AT	17833	17838	orf1ab polyprotein	54	TA	10631	10636	polyprotein 1ab
83	TA	17988	17993	orf1ab polyprotein	55	TAT	10877	10885	polyprotein 1ab
84	T	18071	18076	orf1ab polyprotein	56	T	10970	10977	polyprotein 1ab
85	GA	18544	18551	orf1ab polyprotein	57	TGG	11130	11139	polyprotein 1ab
86	A	18565	18571	orf1ab polyprotein	58	T	11235	11240	polyprotein 1ab
87	AG	18772	18777	orf1ab polyprotein	59	TGT	11432	11444	polyprotein 1ab
88	TG	18789	18794	orf1ab polyprotein	60	TTG	11473	11484	polyprotein 1ab
89	T	19479	19484	orf1ab polyprotein	61	GTTT	11550	11561	polyprotein 1ab
90	TG	19504	19509	orf1ab polyprotein	62	TTG	11662	11673	polyprotein 1ab
91	AT	19747	19752	orf1ab polyprotein	63	AAT	12119	12128	polyprotein 1ab
92	GTT	19822	19830	orf1ab polyprotein	64	TGT	12425	12436	polyprotein 1ab
93	A	20587	20595	orf1ab polyprotein	65	AT	12532	12537	polyprotein 1ab
94	GTA	20669	20680	orf1ab polyprotein	66	TG	13070	13080	polyprotein 1ab
95	TTAT	20696	20707	orf1ab polyprotein	67	TA	13140	13145	polyprotein 1ab
96	AG	20919	20926	orf1ab polyprotein	68	A	13631	13638	polyprotein 1ab
97	T	21298	21303	orf1ab polyprotein	69	C	13792	13797	polyprotein 1ab
98	TA	21392	21397	orf1ab polyprotein	70	GT	14056	14061	polyprotein 1ab
99	T	21428	21433	orf1ab polyprotein	71	TGG	14446	14455	polyprotein 1ab
100	T	21783	21789	hemagglutinin-esterase glycc	72	TG	14657	14662	polyprotein 1ab
101	T	21791	21797	hemagglutinin-esterase glycc	73	CA	14888	14893	polyprotein 1ab
102	T	22047	22052	hemagglutinin-esterase glycc	74	AAC	14971	14982	polyprotein 1ab
103	T	22169	22174	hemagglutinin-esterase glycc	75	T	14983	14990	polyprotein 1ab
104	TTTAT	22290	22304	hemagglutinin-esterase glycc	76	AT	15029	15034	polyprotein 1ab
105	T	22480	22485	hemagglutinin-esterase glycc	77	GT	15153	15158	polyprotein 1ab
106	CT	22503	22508	hemagglutinin-esterase glycc	78	T	16186	16191	polyprotein 1ab
107	TTTAT	22682	22697	hemagglutinin-esterase glycc	79	T	16195	16200	polyprotein 1ab
108	TA	22707	22712	hemagglutinin-esterase glycc	80	GATT	16656	16667	polyprotein 1ab
109	T	22837	22842	hemagglutinin-esterase glycc	81	GT	16727	16732	polyprotein 1ab
110	TAT	22861	22871	hemagglutinin-esterase glycc	82	TA	16918	16923	polyprotein 1ab
111	TA	22911	22916	hemagglutinin-esterase glycc	83	T	17265	17270	polyprotein 1ab
112	ATT	22951	22962	spike glycoprotein	84	CA	17695	17700	polyprotein 1ab
113	T	23246	23251	spike glycoprotein	85	A	17798	17803	polyprotein 1ab
114	TG	23405	23410	spike glycoprotein	86	TAA	18001	18009	polyprotein 1ab
115	T	23604	23609	spike glycoprotein	87	GT	18066	18071	polyprotein 1ab
116	T	23984	23989	spike glycoprotein	88	TG	18972	18977	polyprotein 1ab
117	AT	24073	24078	spike glycoprotein	89	CA	19211	19216	polyprotein 1ab
118	CTT	24263	24271	spike glycoprotein	90	T	20500	20506	polyprotein 1ab
119	A	24545	24551	spike glycoprotein	91	TG	20651	20656	polyprotein 1ab
120	T	24710	24715	spike glycoprotein	92	AGTTA	20721	20735	polyprotein 1ab
121	CTT	25190	25204	spike glycoprotein	93	T	20758	20764	polyprotein 1ab
122	ATA	25463	25474	spike glycoprotein	94	CTT	21097	21106	spike glycoprotein

123	TTC	25641	25651	spike glycoprotein	95	AG	21134	21139	spike glycoprotein
124	T	25656	25662	spike glycoprotein	96	T	21306	21312	spike glycoprotein
125	CAG	25868	25879	spike glycoprotein	97	GT	21494	21501	spike glycoprotein
126	TC	26219	26224	spike glycoprotein	98	AT	21547	21552	spike glycoprotein
127	GT	26289	26294	spike glycoprotein	99	TGT	22275	22286	spike glycoprotein
128	T	26727	26732	spike glycoprotein	100	TA	22766	22771	spike glycoprotein
129	T	26896	26901	spike glycoprotein	101	T	23079	23084	spike glycoprotein
130	TGT	26905	26913	spike glycoprotein	102	CA	23240	23247	spike glycoprotein
131	AC	27073	27078	non-structural protein	103	T	23329	23335	spike glycoprotein
132	TTTTAG	27419	27436	small membrane protein	104	TG	23392	23397	spike glycoprotein
133	TTG	27458	27466	small membrane protein	105	G	23649	23654	spike glycoprotein
134	T	27468	27473	small membrane protein	106	TTG	23657	23665	spike glycoprotein
135	CA	28047	28052	membrane glycoprotein	107	TC	24321	24326	spike glycoprotein
136	TA	28083	28088	membrane glycoprotein	108	TAT	24582	24591	spike glycoprotein
137	T	29279	29284	nucleocapsid phosphoprotein	109	A	24774	24779	spike glycoprotein
138	CT	29534	29539	nucleocapsid phosphoprotein	110	T	24803	24808	spike glycoprotein
139	CT	29707	29712	NC	111	TA	24949	24954	spike glycoprotein
140	AT	29874	29884	NC	112	ATCT	25104	25115	spike glycoprotein
					113	GTTTTA	25477	25495	spike glycoprotein
					114	TTTAG	25645	25658	spike glycoprotein
CV33					115	T	25690	25695	spike glycoprotein
S.No	Consensus	Start	End	SSR Location in Gene	116	T	26489	26495	hemagglutinin esterase
1	CT	30	40	NC	117	T	26750	26755	hemagglutinin esterase
2	ATCTA	59	73	NC	118	GGT	26806	26817	hemagglutinin esterase
3	TG	1069	1074	orf1ab	119	TGA	27456	27467	hemagglutinin esterase
4	CA	1360	1365	orf1ab	120	ATG	27475	27483	hemagglutinin esterase
5	TGT	2527	2538	orf1ab	121	TGG	27674	27685	hemagglutinin esterase
6	TA	2616	2621	orf1ab	122	T	27711	27717	hemagglutinin esterase
7	TC	2812	2817	orf1ab	123	AG	27756	27765	NC
8	GAT	3095	3106	orf1ab	124	AAT	27918	27926	nucleocapsid phosphoprotein
9	TG	3325	3335	orf1ab	125	AAT	27969	27977	nucleocapsid phosphoprotein
10	GT	3533	3538	orf1ab	126	TG	28357	28362	NC
11	GC	3702	3707	orf1ab					
12	T	3757	3762	orf1ab					
13	GAT	4817	4828	orf1ab					
14	T	5130	5135	orf1ab	CV60				
15	AAT	5348	5356	orf1ab	S.No	Consensus	Start	End	SSR Location in Gene
16	TA	5360	5365	orf1ab	1	CT	445	450	NC
17	GT	5992	5997	orf1ab	2	T	488	493	NC
18	AG	6788	6793	orf1ab	3	CAA	762	770	NC
19	TA	6976	6981	orf1ab	4	AC	850	855	NC
20	T	7117	7122	orf1ab	5	CAA	1399	1431	replicase polyprotein 1ab
21	GT	7377	7382	orf1ab	6	AC	1468	1473	replicase polyprotein 1ab
22	CT	7435	7440	orf1ab	7	CA	1533	1538	replicase polyprotein 1ab
23	TG	7447	7452	orf1ab	8	TCAC	1695	1705	replicase polyprotein 1ab
24	GTTT	7545	7556	orf1ab	9	CAC	1787	1798	replicase polyprotein 1ab
25	AGC	7852	7860	orf1ab	10	AC	1812	1817	replicase polyprotein 1ab
26	CT	7865	7870	orf1ab	11	A	1931	1936	replicase polyprotein 1ab
27	GA	7964	7971	orf1ab	12	AT	2267	2272	replicase polyprotein 1ab
28	ATG	7986	7994	orf1ab	13	A	2673	2678	replicase polyprotein 1ab
29	TA	9323	9328	orf1ab	14	ACA	2955	2966	replicase polyprotein 1ab
30	TTTA	9624	9634	orf1ab	15	A	3183	3188	replicase polyprotein 1ab
31	AG	10109	10114	orf1ab	16	TTC	3336	3344	replicase polyprotein 1ab
32	TG	10644	10649	orf1ab	17	GAA	3396	3407	replicase polyprotein 1ab
33	TG	11268	11273	orf1ab	18	AGA	3869	3880	replicase polyprotein 1ab
34	TTGG	11378	11388	orf1ab	19	CCAACA	3972	4000	replicase polyprotein 1ab
35	TGT	11786	11797	orf1ab	20	CAA	3996	4004	replicase polyprotein 1ab
36	CAG	12183	12191	orf1ab	21	GAA	4056	4064	replicase polyprotein 1ab
37	TG	13230	13235	orf1ab	22	CCAA	4175	4185	replicase polyprotein 1ab
38	TA	13271	13276	orf1ab	23	CA	4190	4195	replicase polyprotein 1ab
39	TA	13405	13410	orf1ab	24	AC	4500	4505	replicase polyprotein 1ab
40	T	13609	13614	orf1ab	25	CA	4523	4528	replicase polyprotein 1ab
41	CA	13928	13933	orf1ab	26	CA	5099	5104	replicase polyprotein 1ab
42	ACC	14458	14467	orf1ab	27	CA	5330	5337	replicase polyprotein 1ab
43	CTT	14898	14906	orf1ab	28	AC	5359	5364	replicase polyprotein 1ab
44	GTT	14985	14997	orf1ab	29	AC	5416	5421	replicase polyprotein 1ab
45	TGA	15854	15863	orf1ab	30	TC	5732	5737	replicase polyprotein 1ab
46	TG	15870	15875	orf1ab	31	CA	5993	5998	replicase polyprotein 1ab
47	AT	16239	16244	orf1ab	32	CAA	6074	6085	replicase polyprotein 1ab
48	GT	16508	16513	orf1ab	33	A	6146	6151	replicase polyprotein 1ab
49	TG	16521	16526	orf1ab	34	CA	6353	6358	replicase polyprotein 1ab
50	GT	17000	17005	orf1ab	35	CTC	6366	6376	replicase polyprotein 1ab
					36	ACA	6528	6540	replicase polyprotein 1ab

51	TG	17324	17329	orf1ab	37	AC	6612	6622	replicase polyprotein 1ab
52	CA	17336	17341	orf1ab	38	CA	6860	6867	replicase polyprotein 1ab
53	GC	17363	17368	orf1ab	39	ATC	7049	7060	replicase polyprotein 1ab
54	TTG	17486	17497	orf1ab	40	AAC	7181	7192	replicase polyprotein 1ab
55	ATA	17744	17752	orf1ab	41	TCA	7219	7229	replicase polyprotein 1ab
56	AG	17942	17947	orf1ab	42	AC	7402	7411	replicase polyprotein 1ab
57	TCG	18518	18526	orf1ab	43	CAA	7492	7503	replicase polyprotein 1ab
58	GA	18547	18554	orf1ab	44	CA	7591	7596	replicase polyprotein 1ab
59	TG	18783	18788	orf1ab	45	TC	8321	8326	replicase polyprotein 1ab
60	TG	19149	19154	orf1ab	46	AC	8362	8367	replicase polyprotein 1ab
61	TG	19507	19512	orf1ab	47	AC	8392	8397	replicase polyprotein 1ab
62	GT	20009	20014	orf1ab	48	CAA	8445	8454	replicase polyprotein 1ab
63	A	20593	20598	orf1ab	49	CA	8471	8476	replicase polyprotein 1ab
64	AGT	20671	20682	orf1ab	50	AC	8523	8528	replicase polyprotein 1ab
65	GT	20687	20692	orf1ab	51	TC	8531	8536	replicase polyprotein 1ab
66	TTAT	20699	20710	orf1ab	52	CA	8714	8719	replicase polyprotein 1ab
67	GT	20754	20759	orf1ab	53	AC	9094	9099	replicase polyprotein 1ab
68	GTTAAT	20770	20787	orf1ab	54	CA	9318	9323	replicase polyprotein 1ab
69	GCT	20857	20868	orf1ab	55	TG	9409	9414	replicase polyprotein 1ab
70	TA	20897	20902	orf1ab	56	CA	9456	9461	replicase polyprotein 1ab
71	AC	21707	21712	orf1ab	57	AC	9538	9550	replicase polyprotein 1ab
72	GA	22337	22342	p30 accessory protein	58	CACGTA	9657	9675	replicase polyprotein 1ab
73	AT	22377	22382	p30 accessory protein	59	ACA	9704	9712	replicase polyprotein 1ab
74	CT	22855	22862	hemagglutinin-esterase glycc	60	AC	9715	9729	replicase polyprotein 1ab
75	ATT	23175	23183	hemagglutinin-esterase glycc	61	ACCA	9735	9746	replicase polyprotein 1ab
76	ATA	24368	24378	spike glycoprotein (S)	62	ACA	9957	9965	replicase polyprotein 1ab
77	AC	24424	24429	spike glycoprotein (S)	63	CA	10003	10008	replicase polyprotein 1ab
78	CA	24474	24479	spike glycoprotein (S)	64	CA	10085	10090	replicase polyprotein 1ab
79	GT	24625	24630	spike glycoprotein (S)	65	CA	10442	10447	replicase polyprotein 1ab
80	GT	25306	25311	spike glycoprotein (S)	66	CA	10552	10557	replicase polyprotein 1ab
81	CTG	26917	26928	spike glycoprotein (S)	67	AC	10942	10947	replicase polyprotein 1ab
82	TA	27264	27269	spike glycoprotein (S)	68	TCA	10951	10961	replicase polyprotein 1ab
83	TG	27933	27938	spike glycoprotein (S)	69	TC	11327	11332	replicase polyprotein 1ab
84	ATA	28041	28050	spike glycoprotein (S)	70	T	11639	11644	replicase polyprotein 1ab
85	GAAA	28089	28100	NC	71	AC	11683	11688	replicase polyprotein 1ab
86	AC	28520	28525	accessory protein 4	72	CAA	11966	11977	replicase polyprotein 1ab
87	GT	28942	28947	envelop protein (E)	73	CT	11994	11999	replicase polyprotein 1ab
88	ATT	29436	29445	membrane protein (M)	74	CTA	12413	12424	replicase polyprotein 1ab
89	CAG	30194	30205	nucleocapsid protein (N)	75	TCA	12451	12459	replicase polyprotein 1ab
90	AG	30708	30713	nucleocapsid protein (N)	76	CA	12469	12479	replicase polyprotein 1ab
91	CTT	30811	30819	nucleocapsid protein (N)	77	AC	12481	12486	replicase polyprotein 1ab
92	AG	31029	31034	nucleocapsid protein (N)	78	TCA	12526	12536	replicase polyprotein 1ab
93	AG	31118	31123	nucleocapsid protein (N)	79	AC	12739	12744	replicase polyprotein 1ab
94	CT	31273	31278	NC	80	GTC	13119	13128	replicase polyprotein 1ab
95	TG	31369	31374	NC	81	AC	13185	13190	replicase polyprotein 1ab
96	A	31512	31526	NC	82	ACCAC	13453	13467	replicase polyprotein 1ab
					83	GAT	13848	13856	replicase polyprotein 1ab
					84	TC	13987	13996	replicase polyprotein 1ab
					85	CA	14054	14059	replicase polyprotein 1ab
					86	GTA	14115	14123	replicase polyprotein 1ab
					87	AC	14215	14220	replicase polyprotein 1ab
					88	TG	14363	14368	replicase polyprotein 1ab
					89	CA	14394	14399	replicase polyprotein 1ab
					90	CAA	14520	14532	replicase polyprotein 1ab
					91	CAA	14656	14664	replicase polyprotein 1ab
					92	CAT	15015	15024	replicase polyprotein 1ab
					93	CA	15199	15204	replicase polyprotein 1ab
					94	CAA	15366	15376	replicase polyprotein 1ab
					95	CA	15443	15448	replicase polyprotein 1ab
					96	ACA	15662	15670	replicase polyprotein 1ab
					97	C	15816	15821	replicase polyprotein 1ab
					98	A	15861	15866	replicase polyprotein 1ab
					99	TTCA	16003	16013	replicase polyprotein 1ab
					100	TCA	16014	16024	replicase polyprotein 1ab
					101	ACC	17205	17214	replicase polyprotein 1ab
					102	TCT	17464	17474	replicase polyprotein 1ab
					103	AC	17542	17547	replicase polyprotein 1ab
					104	AC	17820	17825	replicase polyprotein 1ab
					105	CAA	18025	18036	replicase polyprotein 1ab
					106	CA	18100	18105	replicase polyprotein 1ab
					107	CA	18232	18239	replicase polyprotein 1ab
					108	AC	18574	18579	replicase polyprotein 1ab
CV61									
S.No	Consensus	Start	End	SSR Location in Gene					
1	TG	85	90	NC	86	GTA	14115	14123	replicase polyprotein 1ab
2	GCT	102	111	NC	87	AC	14215	14220	replicase polyprotein 1ab
3	AC	299	304	orf1ab	88	TG	14363	14368	replicase polyprotein 1ab
4	TTC	627	635	orf1ab	89	CA	14394	14399	replicase polyprotein 1ab
5	TG	1490	1495	orf1ab	90	CAA	14520	14532	replicase polyprotein 1ab
6	A	1814	1819	orf1ab	91	CAA	14656	14664	replicase polyprotein 1ab
7	TG	2328	2333	orf1ab	92	CAT	15015	15024	replicase polyprotein 1ab
8	GT	2422	2427	orf1ab	93	CA	15199	15204	replicase polyprotein 1ab
9	GAA	3053	3064	orf1ab	94	CAA	15366	15376	replicase polyprotein 1ab
10	GAA	3074	3085	orf1ab	95	CA	15443	15448	replicase polyprotein 1ab
11	AAG	3189	3197	orf1ab	96	ACA	15662	15670	replicase polyprotein 1ab
12	GAT	3206	3214	orf1ab	97	C	15816	15821	replicase polyprotein 1ab
13	AT	4117	4122	orf1ab	98	A	15861	15866	replicase polyprotein 1ab
14	CAA	4227	4236	orf1ab	99	TTCA	16003	16013	replicase polyprotein 1ab
15	TA	4238	4243	orf1ab	100	TCA	16014	16024	replicase polyprotein 1ab
16	TG	4439	4444	orf1ab	101	ACC	17205	17214	replicase polyprotein 1ab
17	AC	4572	4577	orf1ab	102	TCT	17464	17474	replicase polyprotein 1ab
18	TC	4667	4672	orf1ab	103	AC	17542	17547	replicase polyprotein 1ab
19	CTT	4737	4748	orf1ab	104	AC	17820	17825	replicase polyprotein 1ab
20	AG	4851	4856	orf1ab	105	CAA	18025	18036	replicase polyprotein 1ab
21	GA	4951	4956	orf1ab	106	CA	18100	18105	replicase polyprotein 1ab
22	CA	5171	5176	orf1ab	107	CA	18232	18239	replicase polyprotein 1ab
23	GT	5516	5521	orf1ab	108	AC	18574	18579	replicase polyprotein 1ab

24	AG	6122	6127	orf1ab	109	AC	18653	18658	replicase polyprotein 1ab
25	TAT	6172	6181	orf1ab	110	AC	18991	18996	replicase polyprotein 1ab
26	AC	6189	6194	orf1ab	111	CA	19047	19052	replicase polyprotein 1ab
27	CA	6539	6544	orf1ab	112	AC	19085	19090	replicase polyprotein 1ab
28	ATTT	6907	6918	orf1ab	113	CA	19101	19106	replicase polyprotein 1ab
29	AT	7255	7260	orf1ab	114	AAC	19306	19315	replicase polyprotein 1ab
30	TTAA	7364	7374	orf1ab	115	AC	19368	19375	replicase polyprotein 1ab
31	GA	7675	7680	orf1ab	116	CA	19409	19414	replicase polyprotein 1ab
32	TC	7813	7823	orf1ab	117	AC	19851	19856	replicase polyprotein 1ab
33	AC	8955	8960	orf1ab	118	ACA	20084	20095	replicase polyprotein 1ab
34	AC	9117	9122	orf1ab	119	AC	20352	20357	replicase polyprotein 1ab
35	T	9628	9633	orf1ab	120	CAA	20595	20607	replicase polyprotein 1ab
36	TG	10845	10850	orf1ab	121	AT	21133	21138	replicase polyprotein 1ab
37	T	11075	11082	orf1ab	122	TCC	21263	21271	replicase polyprotein 1ab
38	ATG	11367	11378	orf1ab	123	AC	21772	21777	putative spike protein
39	ATC	11911	11919	orf1ab	124	CA	22102	22117	putative spike protein
40	A	11991	11996	orf1ab	125	AAC	22130	22141	putative spike protein
41	AC	12918	12923	orf1ab	126	AAC	22337	22345	putative spike protein
42	AC	13163	13170	orf1ab	127	ACA	22743	22754	putative spike protein
43	AC	13662	13667	orf1ab	128	ACCA	23173	23184	putative spike protein
44	AT	13778	13783	orf1ab	129	AC	23293	23298	putative spike protein
45	TGA	13896	13907	orf1ab	130	T	23310	23315	putative spike protein
46	AT	13949	13954	orf1ab	131	TAC	23625	23636	putative spike protein
47	AG	14271	14276	orf1ab	132	CA	23894	23899	putative spike protein
48	AG	14485	14490	orf1ab	133	CCA	24849	24860	putative spike protein
49	CTT	14757	14765	orf1ab	134	CAA	24897	24905	putative spike protein
50	TG	14828	14833	orf1ab	135	CAA	25114	25122	putative spike protein
51	AAC	15362	15371	orf1ab	136	CTC	25532	25542	putative membrane protein
52	TG	15443	15448	orf1ab	137	ATG	25942	25950	putative nucleocapsid protein
53	CT	15712	15717	orf1ab	138	ACA	25953	25964	putative nucleocapsid protein
54	TG	15729	15734	orf1ab	139	ACC	25977	25986	putative nucleocapsid protein
55	CAA	15883	15892	orf1ab	140	A	26027	26032	putative nucleocapsid protein
56	AC	16214	16219	orf1ab	141	AC	26404	26411	NC
57	TG	16484	16489	orf1ab	142	TA	26502	26507	NC
58	TA	16511	16516	orf1ab	143	ATT	26533	26544	NC
59	CT	17123	17128	orf1ab	144	A	26629	26660	NC
60	GCAC	17455	17465	orf1ab					
61	GT	17509	17514	orf1ab					
62	AC	18112	18117	orf1ab					
63	AC	18554	18559	orf1ab					
64	TC	18567	18572	orf1ab					
65	ATG	18760	18769	orf1ab					
66	GT	19056	19061	orf1ab					
67	CA	19152	19157	orf1ab					
68	CCA	19317	19326	orf1ab					
69	AT	19904	19909	orf1ab					
70	T	19984	19989	orf1ab					
71	GT	20487	20497	orf1ab					
72	TTAT	20501	20512	orf1ab					
73	T	21102	21107	orf1ab					
74	GT	21604	21609	S					
75	TC	22074	22079	S					
76	AT	22169	22174	S					
77	TTC	22321	22329	S					
78	CT	22446	22451	S					
79	TA	22665	22670	S					
80	GGT	22894	22903	S					
81	GA	22955	22962	S					
82	AGT	23089	23100	S					
83	GT	24655	24660	S					
84	CA	24859	24864	S					
85	ATC	25035	25044	S					
86	TC	25148	25153	S					
87	TA	25187	25192	S					
88	TGT	25301	25312	S					
89	TGT	25643	25655	ORF3a					
90	AAT	25755	25766	ORF3a					
91	CA	26131	26136	ORF3a					
92	CGA	26192	26203	ORF3a					
93	CTT	26296	26307	E					
94	TG	26360	26365	E					
95	TA	26661	26666	M					

96	GT	27459	27464	ORF7a					
97	CGTT	28194	28204	ORF8					
98	AAAC	28258	28269	ORF8,					
99	GTG	28557	28565	N					
100	CAG	28869	28878	N					
101	CAA	28988	28999	N					
102	CTG	29022	29030	N					
103	CA	29546	29551	NC					
104	TA	29564	29569	ORF10					
105	AT	29594	29599	ORF10					
106	GT	29688	29693	NC					
107	A	29869	29903	NC					

Supplementary File 3: cSSRs extracted in the study

CV02

dMAX10

No.	Compound SSR	Start	End
1	(AG)3-x2-(GTG)4	1045	1064
2	(TG)3-x4-(GTGTTA)3	5390	5417
3	(TG)3-x4-(ATGC)3	7922	7942
4	(ACT)4-x0-(GT)4-x2-(CA)3	19622	19648
5	(AAT)4-x6-(TTCA)3	27065	27092

dMAX20

No.	Compound SSR	Start	End
1	(AG)3-x2-(GTG)4	1045	1064
2	(TG)3-x4-(GTGTTA)3	5390	5417
3	(CT)3-x19-(TG)3	6889	6919
4	(TG)3-x4-(ATGC)3	7922	7942
5	(GTA)3-x14-(AC)3	16706	16735
6	(TA)3-x15-(ACA)3	17591	17621
7	(ACT)4-x0-(GT)4-x2-(CA)3	19622	19648
8	(TG)3-x14-(TAG)4	24560	24591
9	(TG)3-x14-(AC)3	24926	24951
10	(AAT)4-x6-(TTCA)3	27065	27092
11	(A)6-x11-(GTG)3	28787	28813

dMAX30

No.	Compound SSR	Start	End
1	(AG)3-x2-(GTG)4	1045	1064
2	(TG)3-x4-(GTGTTA)3	5390	5417
3	(CT)3-x19-(TG)3	6889	6919
4	(TG)3-x4-(ATGC)3	7922	7942
5	(GTA)3-x14-(AC)3	16706	16735
6	(TA)3-x15-(ACA)3	17591	17621
7	(TG)3-x24-(TGC)3	18267	18306
8	(ACT)4-x0-(GT)4-x2-(CA)3	19622	19648
9	(CAG)3-x21-(AT)3	22325	22361
10	(TG)3-x14-(TAG)4-x23-(TGT)4	24560	24626
11	(TG)3-x14-(AC)3	24926	24951
12	(AAT)4-x6-(TTCA)3	27065	27092

dMAX40

No.	Compound SSR	Start	End
1	(AG)3-x2-(GTG)4	1045	1064
2	(A)6-x35-(ATGC)3	2238	2290
3	(TG)3-x4-(GTGTTA)3	5390	5417
4	(CT)3-x19-(TG)3	6889	6919
5	(TG)3-x4-(ATGC)3	7922	7942
6	(GTA)3-x14-(AC)3	16706	16735
7	(AT)3-x34-(CA)3	17055	17100
8	(TA)3-x15-(ACA)3	17591	17621
9	(TG)3-x24-(TGC)3	18267	18306
10	(ACT)4-x0-(GT)4-x2-(CA)3	19622	19648
11	(TA)3-x31-(CA)3	20146	20188
12	(CAG)3-x21-(AT)3	22325	22361
13	(ACA)3-x39-(GA)3	22686	22739
14	(TG)3-x14-(TAG)4-x23-(TGT)4	24560	24626
15	(TG)3-x14-(AC)3-x37-(TC)3	24926	24994
16	(AAT)4-x6-(TTCA)3	27065	27092

dMAX50

No.	Compound SSR	Start	End
1	(AG)3-x2-(GTG)4	1045	1064
2	(A)6-x35-(ATGC)3	2238	2290
3	(TG)3-x4-(GTGTTA)3	5390	5417
4	(CT)3-x19-(TG)3	6889	6919
5	(TG)3-x4-(ATGC)3	7922	7942
6	(GA)3-x42-(AG)3	11546	11599
7	(TG)3-x42-(AG)3	11946	11999
8	(GTA)3-x14-(AC)3	16706	16735
9	(AT)3-x34-(CA)3	17055	17100
10	(TA)3-x15-(ACA)3	17591	17621
11	(TG)3-x24-(TGC)3	18267	18306
12	(ACT)4-x0-(GT)4-x2-(CA)3	19622	19648
13	(TA)3-x31-(CA)3	20146	20188
14	(CAG)3-x21-(AT)3	22325	22361
15	(ACA)3-x39-(GA)3	22686	22739
16	(TG)3-x14-(TAG)4-x23-(TGT)4	24560	24626
17	(TG)3-x14-(AC)3-x37-(TC)3	24926	24994
18	(TGT)3-x48-(ACA)4	25241	25309
19	(AAT)4-x6-(TTCA)3	27065	27092

CV03

dMAX10

No.	Compound SSR	Start	End
1	(TGA)4-x2-(TTG)3	14529	14551
2	(TA)3-x0-(ACA)4	25542	25558

CV33

dMAX10

No.	Compound SSR	Start	End
1	(AAT)3-x3-(TA)3	5348	5365
2	(CT)3-x6-(TG)3	7435	7452
3	(AGC)3-x4-(CT)3	7852	7870
4	(TGA)3-x6-(TG)3	15854	15875
5	(GT)3-x7-(TG)3	16508	16526
6	(TG)3-x6-(CA)3	17324	17341
7	(AGT)4-x4-(GT)3-x6-(TTAT)3	20671	20710

dMAX20

No.	Compound SSR	Start	End
1	(CT)6-x18-(ATCTA)3	30	73
2	(AAT)3-x3-(TA)3	5348	5365
3	(CT)3-x6-(TG)3	7435	7452
4	(AGC)3-x4-(CT)3	7852	7870
5	(GA)3-x14-(ATG)3	7964	7994
6	(TGA)3-x6-(TG)3	15854	15875
7	(GT)3-x7-(TG)3	16508	16526
8	(TG)3-x6-(CA)3	17324	17341
9	(AGT)4-x4-(GT)3-x6-(TTAT)3	20671	20710
10	(GT)3-x10-(GTTAAT)3	20754	20787

dMAX30

No.	Compound SSR	Start	End
1	(CT)6-x18-(ATCTA)3	30	73
2	(AAT)3-x3-(TA)3	5348	5365
3	(CT)3-x6-(TG)3	7435	7452
4	(AGC)3-x4-(CT)3	7852	7870
5	(GA)3-x14-(ATG)3	7964	7994
6	(TGA)3-x6-(TG)3	15854	15875
7	(GT)3-x7-(TG)3	16508	16526
8	(TG)3-x6-(CA)3-x21-(GC)3	17324	17368
9	(TCG)3-x20-(GA)3	18518	18554
10	(AGT)4-x4-(GT)3-x6-(TTAT)3	20671	20710
11	(GT)3-x10-(GTTAAT)3	20754	20787
12	(GCT)4-x28-(TA)3	20857	20902

dMAX40

No.	Compound SSR	Start	End
1	(CT)6-x18-(ATCTA)3	30	73
2	(AAT)3-x3-(TA)3	5348	5365
3	(CT)3-x6-(TG)3	7435	7452
4	(AGC)3-x4-(CT)3	7852	7870
5	(GA)3-x14-(ATG)3	7964	7994
6	(TG)3-x35-(TA)3	13230	13276
7	(TGA)3-x6-(TG)3	15854	15875
8	(GT)3-x7-(TG)3	16508	16526
9	(TG)3-x6-(CA)3-x21-(GC)3	17324	17368
10	(TCG)3-x20-(GA)3	18518	18554
11	(AGT)4-x4-(GT)3-x6-(TTAT)3	20671	20710
12	(GT)3-x10-(GTTAAT)3	20754	20787
13	(GCT)4-x28-(TA)3	20857	20902
14	(GA)3-x34-(AT)3	22337	22382
15	(ATA)3-x38-(GAAA)3	28041	28100

dMAX50

No.	Compound SSR	Start	End
1	(CT)6-x18-(ATCTA)3	30	73
2	(GC)3-x49-(T)6	3702	3762
3	(AAT)3-x3-(TA)3	5348	5365
4	(CT)3-x6-(TG)3	7435	7452
5	(AGC)3-x4-(CT)3	7852	7870
6	(GA)3-x14-(ATG)3	7964	7994
7	(TG)3-x35-(TA)3	13230	13276
8	(TGA)3-x6-(TG)3	15854	15875
9	(GT)3-x7-(TG)3	16508	16526
10	(TG)3-x6-(CA)3-x21-(GC)3	17324	17368
11	(TCG)3-x20-(GA)3	18518	18554
12	(AGT)4-x4-(GT)3-x6-(TTAT)3-x43-(GT)3-x10-(GTTAAT)3	20671	20787
13	(GCT)4-x28-(TA)3	20857	20902
14	(GA)3-x34-(AT)3	22337	22382
15	(ATA)4-x45-(AC)3-x44-(CA)3	24368	24479
16	(ATA)3-x38-(GAAA)3	28041	28100

CV34

dMAX10

No.	Compound SSR	Start	End
1	(CT)6-x4-(TG)3	7373	7393

5	(AG)4-x13-(T)6	4771	4797
6	(ACT)4-x18-(T)6	6070	6105
7	(TGT)3-x20-(T)6	10270	10306
8	(AGTG)3-x0-(CATT)3	13276	13297
9	(AAC)4-x24-(CA)3	16633	16675
10	(GTA)3-x14-(AC)3	16781	16810
11	(AT)3-x34-(CA)3	17130	17175
12	(ACT)4-x0-(GT)4-x2-(CA)3	19697	19723
13	(TG)3-x14-(TAG)4	24620	24651
14	(TG)3-x14-(AC)3-x37-(TC)3	24971	25039
15	(AC)3-x35-(AG)3	25149	25195

2	(TGA)4-x16-(CT)3	3167	3200
3	(CT)3-x5-(AC)3	4239	4255
4	(AG)3-x25-(CT)3	7959	7995
5	(TC)3-x8-(TGT)3	8144	8167
6	(TG)3-x12-(TGT)4	15053	15081
7	(TGG)3-x28-(TC)3	17573	17615
8	(CT)4-x4-(TC)3	21606	21623
9	(AG)3-x20-(TC)4	21669	21702
10	(TG)3-x28-(TG)3-x2-(GT)3	27985	28032
11	(CT)3-x25-(CT)3	28155	28191

dMAX50

No.	Compound SSR	Start	End
1	(GT)3-x30-(CA)3	1666	1707
2	(CG)3-x29-(TGA)3	2053	2097
3	(GTA)4-x35-(AG)3	2941	2992
4	(A)8-x30-(GCT)4	3513	3562
5	(AG)4-x13-(T)6	4771	4797
6	(ACT)4-x18-(T)6	6070	6105
7	(TGT)3-x20-(T)6	10270	10306
8	(AGTG)3-x0-(CATT)3	13276	13297
9	(AAC)4-x24-(CA)3	16633	16675
10	(GTA)3-x14-(AC)3	16781	16810
11	(AT)3-x34-(CA)3	17130	17175
12	(ACT)4-x0-(GT)4-x2-(CA)3	19697	19723
13	(TG)3-x14-(TAG)4	24620	24651
14	(TG)3-x14-(AC)3-x37-(TC)3	24971	25039
15	(AC)3-x35-(AG)3	25149	25195

dMAX40

No.	Compound SSR	Start	End
1	(A)6-x14-(TC)3	328	353
2	(TGA)4-x16-(CT)3	3167	3200
3	(CT)3-x5-(AC)3	4239	4255
4	(AG)3-x25-(CT)3	7959	7995
5	(TC)3-x8-(TGT)3-x35-(GA)3	8144	8208
6	(TG)3-x12-(TGT)4	15053	15081
7	(TGG)3-x28-(TC)3	17573	17615
8	(TA)3-x38-(CT)4-x4-(TC)3	21562	21623
9	(AG)3-x20-(TC)4	21669	21702
10	(TA)3-x39-(TG)3	25628	25678
11	(T)6-x33-(TG)3-x28-(TG)3-x2-(GT)3	27946	28032
12	(AG)3-x38-(CT)3-x25-(CT)3	28111	28191

dMAX50

No.	Compound SSR	Start	End
1	(A)6-x14-(TC)3	328	353
2	(TGA)4-x16-(CT)3	3167	3200
3	(CA)3-x46-(CA)3	3563	3620
4	(CT)3-x5-(AC)3	4239	4255
5	(AG)3-x25-(CT)3	7959	7995
6	(TC)3-x8-(TGT)3-x35-(GA)3	8144	8208
7	(TG)3-x12-(TGT)4	15053	15081
8	(TGG)3-x28-(TC)3	17573	17615
9	(TA)3-x38-(CT)4-x4-(TC)3-x45-(AG)3-x20-(TC)4	21562	21702
10	(TA)3-x39-(TG)3	25628	25678
11	(T)6-x33-(TG)3-x28-(TG)3-x2-(GT)3	27946	28032
12	(AG)3-x38-(CT)3-x25-(CT)3	28111	28191

CV05

dMAX10

No.	Compound SSR	Start	End
1	(AT)3-x8-(AT)3	637	656
2	(TCT)3-x2-(AGA)3	3402	3422
3	(TG)3-x3-(CA)3	19618	19632

CV36

dMAX10

No.	Compound SSR	Start	End
1	(TA)3-x7-(TTA)3	2204	2225
2	(GTTG)3-x8-(TAT)4	6845	6875
3	(GT)3-x3-(AC)3	8435	8449
4	(ATTT)3-x7-(TGC)3	8823	8851
5	(TGG)4-x3-(TA)3	9477	9497
6	(TGA)3-x0-(GTGG)3	27677	27697

dMAX20

No.	Compound SSR	Start	End
1	(AT)3-x8-(AT)3	637	656
2	(A)6-x17-(TC)3	3213	3241
3	(TCT)3-x2-(AGA)3	3402	3422
4	(GTA)3-x14-(AC)3	16690	16719
5	(TG)3-x3-(CA)3	19618	19632
6	(TG)3-x14-(AC)3	24055	24080
6	(TG)3-x14-(AC)3	24055	24080
6	(TG)3-x14-(AC)3	24055	24080

dMAX20

No.	Compound SSR	Start	End
1	(TA)3-x7-(TTA)3	2204	2225
2	(TA)3-x18-(T)6-x10-(TA)3	6721	6766
3	(GTTG)3-x8-(TAT)4	6845	6875
4	(GT)3-x3-(AC)3	8435	8449
5	(ATTT)3-x7-(TGC)3	8823	8851
6	(TGG)4-x3-(TA)3	9477	9497
7	(TG)3-x15-(T)6	14313	14339
8	(TG)3-x11-(TGT)3	22113	22141
9	(TA)4-x13-(TA)3	26360	26386
10	(TGA)3-x0-(GTGG)3	27677	27697
11	(T)6-x12-(T)6	27874	27897

dMAX30

No.	Compound SSR	Start	End
1	(AT)3-x8-(AT)3	637	656
2	(A)6-x17-(TC)3	3213	3241
3	(TCT)3-x2-(AGA)3	3402	3422
4	(GTA)3-x14-(AC)3	16690	16719
5	(TG)3-x3-(CA)3	19618	19632
6	(TG)3-x14-(AC)3	24055	24080
7	(AG)3-x28-(TG)3	24177	24216

dMAX30

No.	Compound SSR	Start	End
1	(TTA)3-x27-(AC)3	1014	1055
2	(TA)3-x7-(TTA)3	2204	2225
3	(TGT)3-x23-(TA)3	4188	4225
4	(GT)3-x29-(AT)3	6399	6439
5	(GCA)3-x28-(TA)3-x18-(T)6-x10-(TA)3	6684	6766
6	(GTTG)3-x8-(TAT)4	6845	6875
7	(GT)3-x3-(AC)3	8435	8449
8	(ATTT)3-x7-(TGC)3	8823	8851
9	(TGG)4-x3-(TA)3	9477	9497
10	(CTG)4-x24-(TG)3	10574	10614
11	(TG)3-x15-(T)6	14313	14339
12	(TG)6-x21-(TC)3	17439	17476
13	(GT)3-x29-(TGT)4	19547	19593
14	(TG)3-x11-(TGT)3	22113	22141
15	(TA)4-x13-(TA)3	26360	26386
16	(TGA)3-x0-(GTGG)3	27677	27697
17	(T)6-x12-(T)6	27874	27897

dMAX40

No.	Compound SSR	Start	End
1	(AT)3-x8-(AT)3	637	656
2	(A)6-x17-(TC)3	3213	3241
3	(TCT)3-x2-(AGA)3	3402	3422
4	(T)6-x36-(GTTTTT)3	7465	7524
5	(ATTG)3-x38-(CA)3	12139	12194
6	(GTA)3-x14-(AC)3	16690	16719
7	(AT)3-x34-(CA)3	17039	17084
8	(TG)3-x3-(CA)3	19618	19632
9	(TG)3-x14-(AC)3	24055	24080
10	(AC)3-x35-(AG)3-x28-(TG)3	24136	24216

dMAX50

No.	Compound SSR	Start	End
1	(AT)3-x8-(AT)3	637	656
2	(A)6-x17-(TC)3-x47-(GAA)4	3213	3300
3	(TCT)3-x2-(AGA)3	3402	3422
4	(T)6-x36-(GTTTTT)3	7465	7524
5	(GA)3-x44-(AG)4	11530	11587
6	(TG)3-x42-(AG)3	11930	11983
7	(ATTG)3-x38-(CA)3	12139	12194
8	(GTA)3-x14-(AC)3	16690	16719
9	(AT)3-x34-(CA)3	17039	17084
10	(TG)3-x3-(CA)3	19618	19632
11	(TG)3-x14-(AC)3	24055	24080
12	(AC)3-x35-(AG)3-x28-(TG)3	24136	24216
13	(TTCA)3-x46-(GA)3	25979	26041
14	(AC)3-x41-(TCC)4	26992	27050

dMAX40

No.	Compound SSR	Start	End
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	10 (ATG)4-x11-(CA)3	26446	26473		5 (TGT)3-x39-(TG)3	19109	19165	
dMAX40					6 (ATT)3-x43-(TG)3	21834	21891	
No.	Compound SSR	Start	End		7 (GA)3-x-1-(A)8-x44-(T)7	22512	22575	
	1 (TGT)3-x5-(TG)6	4894	4918		8 (TAATTA)3-x34-(GA)4	22793	22852	
	2 (T)6-x17-(T)7	6073	6102		9 (GT)3-x32-(GT)3	23060	23103	
	3 (TG)3-x4-(TG)3	7782	7797		10 (CA)3-x44-(AC)3	23717	23772	
	4 (A)6-x13-(TG)3	12627	12651		11 (CA)3-x1-(TTTGCT)3	27452	27476	
	5 (AG)3-x0-(GTT)3	13951	13965		12 (CAA)4-x22-(CTG)3	28837	28879	
	6 (TAT)3-x16-(T)6	14034	14065	CV38				
	7 (GT)3-x8-(GGA)3	16166	16189	dMAX10	No.	Compound SSR	Start	End
	8 (TTG)3-x0-(AC)6	21584	21604			1 (GA)3-x-1-(A)8	22512	22524
	9 (TGG)3-x20-(GT)3	24801	24836			2 (CA)3-x1-(TTTGCT)3	27452	27476
	10 (ATG)4-x11-(CA)3	26446	26473					
dMAX50				dMAX20	No.	Compound SSR	Start	End
No.	Compound SSR	Start	End			1 (TG)3-x12-(AC)4	13075	13100
	1 (T)6-x45-(AG)3	561	617			2 (GA)3-x-1-(A)8	22512	22524
	2 (TGT)3-x5-(TG)6	4894	4918			3 (CA)3-x1-(TTTGCT)3	27452	27476
	3 (T)6-x17-(T)7	6073	6102	dMAX30	No.	Compound SSR	Start	End
	4 (TG)3-x4-(TG)3	7782	7797			1 (TG)3-x12-(AC)4	13075	13100
	5 (A)6-x13-(TG)3	12627	12651			2 (GA)3-x-1-(A)8	22512	22524
	6 (GT)3-x40-(GT)3	12995	13046			3 (CA)3-x1-(TTTGCT)3	27452	27476
	7 (AG)3-x0-(GTT)3	13951	13965			4 (CAA)4-x22-(CTG)3	28837	28879
	8 (TAT)3-x16-(T)6	14034	14065	dMAX40	No.	Compound SSR	Start	End
	9 (GT)3-x8-(GGA)3	16166	16189			1 (GC)3-x38-(GA)3	7691	7740
	10 (TTG)3-x0-(AC)6	21584	21604			2 (TG)3-x12-(AC)4	13075	13100
	11 (TGG)3-x20-(GT)3	24801	24836			3 (TGT)3-x39-(TG)3	19109	19165
	12 (AT)3-x47-(GACAAT)3	24938	25009			4 (GA)3-x-1-(A)8	22512	22524
	13 (ATG)4-x11-(CA)3	26446	26473			5 (TAATTA)3-x34-(GA)4	22793	22852
CV08						6 (GT)3-x32-(GT)3	23060	23103
dMAX10						7 (CA)3-x1-(TTTGCT)3	27452	27476
No.	Compound SSR	Start	End			8 (CAA)4-x22-(CTG)3	28837	28879
	1 (TTA)3-x0-(TG)3	1623	1637	dMAX50	No.	Compound SSR	Start	End
	2 (GA)3-x0-(TG)3	9143	9154			1 (CG)3-x49-(AG)3	883	943
	3 (AT)3-x6-(TA)3	15458	15475			2 (TG)3-x41-(GC)3	1862	1914
	4 (TG)3-x8-(AC)3	18156	18175			3 (GC)3-x38-(GA)3	7691	7740
	5 (AATT)3-x5-(AT)3	19046	19068			4 (TG)3-x12-(AC)4	13075	13100
dMAX20						5 (TGT)3-x39-(TG)3	19109	19165
No.	Compound SSR	Start	End			6 (ATT)3-x43-(TG)3	21834	21891
	1 (TTA)3-x0-(TG)3	1623	1637			7 (GA)3-x-1-(A)8-x44-(T)7	22512	22575
	2 (GA)3-x0-(TG)3	9143	9154			8 (TAATTA)3-x34-(GA)4	22793	22852
	3 (AT)3-x6-(TA)3	15458	15475			9 (GT)3-x32-(GT)3	23060	23103
	4 (TG)3-x8-(AC)3	18156	18175			10 (CA)3-x44-(AC)3	23717	23772
	5 (AATT)3-x5-(AT)3	19046	19068			11 (CA)3-x1-(TTTGCT)3	27452	27476
	6 (TTGT)3-x16-(AT)3	21959	21993			12 (CAA)4-x22-(CTG)3	28837	28879
dMAX30				CV42				
No.	Compound SSR	Start	End	dMAX10	No.	Compound SSR	Start	End
	1 (TTA)3-x0-(TG)3	1623	1637			1 (CA)3-x1-(TTTGCT)3	27437	27461
	2 (GT)3-x22-(TTA)5	6181	6222	dMAX20	No.	Compound SSR	Start	End
	3 (GA)3-x0-(TG)3	9143	9154			1 (TG)3-x12-(AC)4	13060	13085
	4 (TTGG)3-x28-(TG)3	12312	12357			2 (CA)3-x1-(TTTGCT)3	27437	27461
	5 (AT)3-x6-(TA)3	15458	15475	dMAX30	No.	Compound SSR	Start	End
	6 (TG)3-x8-(AC)3	18156	18175			1 (TG)3-x12-(AC)4	13060	13085
	7 (AATT)3-x5-(AT)3	19046	19068			2 (CA)3-x1-(TTTGCT)3	27437	27461
	8 (TTGT)3-x16-(AT)3-x20-(GT)4-x25-(TA)5	21959	22056			3 (CAA)4-x22-(CTG)3	28851	28893
dMAX40				dMAX40	No.	Compound SSR	Start	End
No.	Compound SSR	Start	End			1 (TG)3-x36-(T)6	1847	1894
	1 (TTA)3-x0-(TG)3	1623	1637			2 (GC)3-x38-(GA)3	7676	7725
	2 (GT)3-x22-(TTA)5	6181	6222			3 (TG)3-x12-(AC)4	13060	13085
	3 (GA)3-x0-(TG)3	9143	9154			4 (TGT)3-x39-(TG)3	19094	19150
	4 (TTGG)3-x28-(TG)3	12312	12357			5 (TAATTA)3-x34-(GA)4	22778	22837
	5 (AT)3-x6-(TA)3	15458	15475			6 (GT)3-x32-(GT)3	23045	23088
	6 (TG)3-x8-(AC)3	18156	18175			7 (CA)3-x1-(TTTGCT)3	27437	27461
	7 (AATT)3-x5-(AT)3	19046	19068			8 (CAA)4-x22-(CTG)3	28851	28893
	8 (AC)3-x39-(TTGT)3-x16-(AT)3-x20-(GT)4-x25-(TA)5	21914	22056	dMAX50	No.	Compound SSR	Start	End
dMAX50						1 (TG)3-x8-(AC)3	18156	18175
No.	Compound SSR	Start	End					
	1 (TTA)3-x0-(TG)3	1623	1637					
	2 (TTG)4-x48-(TA)3	4011	4076					
	3 (GT)3-x22-(TTA)5	6181	6222					
	4 (GA)3-x0-(TG)3	9143	9154					
	5 (AC)3-x42-(TG)3	10372	10425					
	6 (AT)3-x49-(TCT)3	11131	11194					
	7 (TTGG)3-x28-(TG)3	12312	12357					
	8 (TC)3-x46-(TA)3	14670	14727					
	9 (AT)3-x6-(TA)3	15458	15475					
	10 (TG)3-x8-(AC)3	18156	18175					

11 (AATT)3-x5-(AT)3	19046	19068
12 (AC)3-x39-(TTGT)3-x16-(AT)3-x20-(GT)4-x25-(TA)	21914	22056
13 (TAT)4-x42-(AC)3	27294	27353

1 (CG)3-x49-(AG)3	868	928
2 (TG)3-x36-(T)6	1847	1894
3 (GC)3-x38-(GA)3	7676	7725
4 (TG)3-x12-(AC)4	13060	13085
5 (TGTT)3-x39-(TG)3	19094	19150
6 (ATT)3-x43-(TG)3	21819	21876
7 (TAATTA)3-x34-(GA)4	22778	22837
8 (GT)3-x32-(GT)3	23045	23088
9 (CA)3-x1-(TTTGCT)3	27437	27461
10 (CAA)4-x22-(CTG)3	28851	28893

CV09
dMAX10

No.	Compound SSR	Start	End
1 (GT)3-x6-(TTG)3		1677	1697
2 (AAC)3-x8-(AT)4		16852	16876
3 (CA)3-x5-(TG)3		17082	17098
4 (ACT)4-x1-(GA)3		23136	23153

CV43

dMAX10

No.	Compound SSR	Start	End
1 (CA)3-x1-(TTTGCT)3		27431	27455

dMAX20

No.	Compound SSR	Start	End
1 (GT)3-x6-(TTG)3		1677	1697
2 (TGT)3-x18-(CA)3		10951	10984
3 (AAC)3-x8-(AT)4		16852	16876
4 (CA)3-x5-(TG)3		17082	17098
5 (AT)3-x19-(TGAC)3		21531	21567
6 (ACT)4-x1-(GA)3		23136	23153

dMAX20

No.	Compound SSR	Start	End
1 (TG)3-x12-(AC)4		13054	13079
2 (CA)3-x1-(TTTGCT)3		27431	27455

dMAX30

No.	Compound SSR	Start	End
1 (TG)3-x25-(AT)3		459	495
2 (GT)3-x6-(TTG)3-x20-(A)6		1677	1723
3 (TAG)4-x20-(GTT)4		3642	3685
4 (GAT)4-x25-(GT)3		3950	3992
5 (TA)3-x22-(GT)3		6284	6317
6 (TGT)3-x18-(CA)3		10951	10984
7 (AAC)3-x8-(AT)4		16852	16876
8 (CATA)3-x25-(GCT)3		16982	17028
9 (CA)3-x5-(TG)3		17082	17098
10 (AT)3-x19-(TGAC)3		21531	21567
11 (ACT)4-x1-(GA)3		23136	23153

dMAX30

No.	Compound SSR	Start	End
1 (TG)3-x12-(AC)4		13054	13079
2 (ATC)3-x29-(AT)3		25001	25045
3 (CA)3-x1-(TTTGCT)3		27431	27455
4 (CAA)4-x22-(CTG)3		28844	28886

dMAX40

No.	Compound SSR	Start	End
1 (GC)3-x38-(GA)3		7670	7719
2 (TG)3-x12-(AC)4		13054	13079
3 (TGT)3-x39-(TG)3		19088	19144
4 (TAATTA)3-x34-(GA)4		22772	22831
5 (GT)3-x32-(GT)3		23039	23082
6 (ATC)3-x29-(AT)3		25001	25045
7 (CA)3-x1-(TTTGCT)3		27431	27455
8 (CAA)4-x22-(CTG)3		28844	28886

dMAX40

No.	Compound SSR	Start	End
1 (TG)3-x25-(AT)3		459	495
2 (GT)3-x6-(TTG)3-x20-(A)6		1677	1723
3 (CCT)3-x34-(TAG)4-x20-(GTT)4		3599	3685
4 (GAT)4-x25-(GT)3		3950	3992
5 (TA)3-x22-(GT)3		6284	6317
6 (TGT)3-x18-(CA)3		10951	10984
7 (AAT)3-x32-(TGT)4		11111	11163
8 (AAC)3-x8-(AT)4		16852	16876
9 (CATA)3-x25-(GCT)3		16982	17028
10 (CA)3-x5-(TG)3		17082	17098
11 (AT)3-x19-(TGAC)3		21531	21567
12 (ACT)4-x1-(GA)3		23136	23153

dMAX50

No.	Compound SSR	Start	End
1 (CG)3-x49-(AG)3		862	922
2 (TG)3-x41-(GC)3		1841	1893
3 (GC)3-x38-(GA)3		7670	7719
4 (TG)3-x12-(AC)4		13054	13079
5 (TGT)3-x39-(TG)3		19088	19144
6 (ATT)3-x43-(TG)3		21813	21870
7 (TAATTA)3-x34-(GA)4		22772	22831
8 (GT)3-x32-(GT)3		23039	23082
9 (ATC)3-x29-(AT)3		25001	25045
10 (CA)3-x1-(TTTGCT)3		27431	27455
11 (CAA)4-x22-(CTG)3		28844	28886

dMAX50

No.	Compound SSR	Start	End
1 (TG)3-x25-(AT)3		459	495
2 (GT)3-x6-(TTG)3-x20-(A)6		1677	1723
3 (CCT)3-x34-(TAG)4-x20-(GTT)4		3599	3685
4 (GAT)4-x25-(GT)3		3950	3992
5 (TA)3-x22-(GT)3		6284	6317
6 (TTG)3-x47-(TTG)3		8535	8600
7 (TGT)3-x18-(CA)3		10951	10984
8 (AAT)3-x32-(TGT)4		11111	11163
9 (AAC)3-x8-(AT)4		16852	16876
10 (CATA)3-x25-(GCT)3		16982	17028
11 (CA)3-x5-(TG)3		17082	17098
12 (AT)3-x19-(TGAC)3		21531	21567
13 (ACT)4-x1-(GA)3		23136	23153

CV44

dMAX10

No.	Compound SSR	Start	End
1 (TAC)4-x3-(TGT)3		4154	4177
2 (CA)3-x8-(CT)3		11183	11202

CV11

dMAX10

No.	Compound SSR	Start	End
1 (ATG)4-x-2-(TG)3		13800	13814
2 (GA)3-x1-(TTAT)3		17639	17658
3 (AT)3-x5-(GT)3-x6-(CTG)4		22983	23017
4 (GC)4-x2-(AG)3		23504	23519
5 (GT)3-x9-(ATT)3		25792	25815

dMAX20

No.	Compound SSR	Start	End
1 (TAC)4-x3-(TGT)3		4154	4177
2 (CA)3-x8-(CT)3		11183	11202
3 (AG)3-x18-(TA)3		17056	17085

dMAX30

No.	Compound SSR	Start	End
1 (TAC)4-x3-(TGT)3		4154	4177
2 (AG)3-x28-(TACA)3		10029	10074
3 (CA)3-x8-(CT)3		11183	11202
4 (GT)3-x29-(TTA)3		11374	11418
5 (AG)3-x18-(TA)3		17056	17085
6 (ACC)4-x29-(TAA)3		18535	18585
7 (T)6-x29-(CT)3		22792	22832
8 (GT)3-x27-(TG)3		27821	27859

dMAX20

No.	Compound SSR	Start	End
1 (GT)4-x15-(T)6		8821	8849
2 (ATG)4-x-2-(TG)3		13800	13814
3 (GA)3-x1-(TTAT)3		17639	17658
4 (AT)3-x5-(GT)3-x6-(CTG)4		22983	23017
5 (GC)4-x2-(AG)3		23504	23519
6 (GT)3-x9-(ATT)3		25792	25815

dMAX40

No.	Compound SSR	Start	End
1 (TAC)4-x3-(TGT)3		4154	4177
2 (AG)3-x28-(TACA)3		10029	10074
3 (CA)3-x8-(CT)3		11183	11202
4 (GT)3-x29-(TTA)3		11374	11418
5 (AGT)3-x34-(TA)3		16558	16607
6 (AG)3-x18-(TA)3		17056	17085

7	(CCA)3-x2-(CT)3	17367	17384
8	(CA)3-x38-(AT)6	18105	18159
9	(TA)3-x0-(AC)3	18260	18271
10	(GT)3-x27-(ACTT)3	18964	19007
11	(AC)3-x30-(TG)3	19872	19913
12	(GTG)4-x12-(TC)3	24026	24055
13	(TC)3-x36-(AC)3	26744	26791
14	(GAA)4-x15-(GCA)4	27529	27566

14	(AC)3-x47-(T)7	18196	18255
15	(TG)3-x41-(TAC)3	20402	20457
16	(ATA)4-x21-(AT)6	21635	21678
17	(CT)3-x35-(ATA)4	25813	25865
18	(G)6-x12-(GA)3	27068	27091

CV47

dMAX50

No.	Compound SSR	Start	End
1	(ACA)4-x23-(ATTG)3	1189	1235
2	(TGT)4-x34-(GT)3	5724	5775
3	(CT)3-x30-(GT)3	6682	6723
4	(TTG)4-x2-(GT)3	8680	8699
5	(AT)3-x30-(AT)3	8864	8905
6	(CA)5-x49-(TGC)3	10559	10627
7	(CT)3-x0-(ATTA)3	13676	13693
8	(ACTT)3-x44-(CTT)3	13842	13905
9	(CCA)3-x2-(CT)3	17367	17384
10	(CA)3-x38-(AT)6	18105	18159
11	(TA)3-x0-(AC)3	18260	18271
12	(GT)3-x27-(ACTT)3	18964	19007
13	(AC)3-x30-(TG)3	19872	19913
14	(CTA)3-x43-(CGT)3	20720	20780
15	(GTG)4-x12-(TC)3	24026	24055
16	(TC)3-x46-(AC)3	24502	24559
17	(TC)3-x36-(AC)3	26744	26791
18	(AAT)5-x46-(GTG)3	26950	27019
19	(GAA)4-x15-(GCA)4	27529	27566

dMAX10

No.	Compound SSR	Start	End
1	(AC)3-x9-(GT)3	18145	18165
2	(GATT)3-x6-(AC)3-x0-(TA)3	23666	23695

dMAX20

No.	Compound SSR	Start	End
1	(TGT)4-x19-(AG)3	1203	1239
2	(TG)3-x14-(CA)3	12114	12139
3	(AC)3-x9-(GT)3	18145	18165
4	(GATT)3-x6-(AC)3-x0-(TA)3	23666	23695
5	(TGA)3-x17-(G)6-x12-(GA)3	27238	27287

dMAX30

No.	Compound SSR	Start	End
1	(TGT)4-x19-(AG)3	1203	1239
2	(GT)3-x24-(TG)3	5855	5890
3	(TG)3-x14-(CA)3	12114	12139
4	(AC)3-x9-(GT)3	18145	18165
5	(GATT)3-x6-(AC)3-x0-(TA)3	23666	23695
6	(TGA)3-x17-(G)6-x12-(GA)3	27238	27287

CV13

dMAX10

No.	Compound SSR	Start	End
1	(GT)3-x3-(TC)3	7136	7150
2	(T)6-x4-(TCAG)3	16964	16985
3	(TAC)4-x2-(TG)3	19735	19754
4	(TATT)4-x1-(AC)3	24455	24477

dMAX40

No.	Compound SSR	Start	End
1	(TGT)4-x19-(AG)3	1203	1239
2	(TTA)4-x32-(AGT)4	4325	4379
3	(GT)3-x24-(TG)3	5855	5890
4	(TG)3-x14-(CA)3	12114	12139
5	(AC)3-x9-(GT)3	18145	18165
6	(A)6-x33-(AGTT)3	20338	20387
7	(CA)3-x36-(ACT)3	21937	21987
8	(GATT)3-x6-(AC)3-x0-(TA)3	23666	23695
9	(TGA)3-x17-(G)6-x12-(GA)3	27238	27287

dMAX20

No.	Compound SSR	Start	End
1	(GT)3-x3-(TC)3	7136	7150
2	(T)6-x4-(TCAG)3	16964	16985
3	(TAC)4-x2-(TG)3	19735	19754
4	(GTT)3-x17-(TAT)4	24086	24125
5	(TATT)4-x1-(AC)3	24455	24477

dMAX50

No.	Compound SSR	Start	End
1	(TGT)4-x19-(AG)3	1203	1239
2	(AT)3-x46-(TTA)4-x32-(AGT)4	4273	4379
3	(GT)3-x24-(TG)3	5855	5890
4	(TG)3-x47-(GT)3	10605	10663
5	(TG)3-x14-(CA)3	12114	12139
6	(AC)3-x9-(GT)3	18145	18165
7	(A)6-x33-(AGTT)3	20338	20387
8	(CA)3-x36-(ACT)3	21937	21987
9	(GATT)3-x6-(AC)3-x0-(TA)3	23666	23695
10	(TGA)3-x17-(G)6-x12-(GA)3	27238	27287

dMAX30

No.	Compound SSR	Start	End
1	(GA)3-x20-(T)6	1653	1684
2	(GT)3-x3-(TC)3-x24-(GATT)3	7136	7185
3	(TG)3-x26-(T)6-x4-(TCAG)3	16932	16985
4	(TAC)4-x2-(TG)3	19735	19754
5	(AC)4-x26-(GT)3	23090	23129
6	(GTT)3-x17-(TAT)4	24086	24125
7	(CT)3-x29-(TATT)4-x1-(AC)3	24420	24477

CV48

dMAX40

No.	Compound SSR	Start	End
1	(GA)3-x20-(T)6	1653	1684
2	(GT)3-x3-(TC)3-x24-(GATT)3	7136	7185
3	(TG)3-x34-(GGT)3	8322	8371
4	(TG)3-x38-(AC)3	10361	10410
5	(TG)3-x26-(T)6-x4-(TCAG)3	16932	16985
6	(TAC)4-x2-(TG)3	19735	19754
7	(AC)4-x26-(GT)3	23090	23129
8	(GTT)3-x17-(TAT)4-x31-(TTG)4	24086	24168
9	(TG)3-x38-(CT)3	24266	24315
10	(CT)3-x29-(TATT)4-x1-(AC)3-x39-(AAACT)3	24420	24531

dMAX10

No.	Compound SSR	Start	End
1	(GT)5-x8-(TAGA)3	7191	7219
2	(ATT)3-x0-(TG)3	25216	25231
3	(AG)4-x6-(GA)5	25887	25910

dMAX20

No.	Compound SSR	Start	End
1	(GT)3-x19-(G)6	89	119
2	(AT)3-x16-(GT)3	2383	2410
3	(GT)3-x17-(AG)3	4182	4210
4	(GT)5-x8-(TAGA)3	7191	7219
5	(C)6-x15-(TA)3	16996	17022
6	(T)6-x14-(GTG)4	20933	20964
7	(ATT)3-x0-(TG)3	25216	25231
8	(AG)4-x6-(GA)5	25887	25910

dMAX50

No.	Compound SSR	Start	End
1	(GA)3-x20-(T)6	1653	1684
2	(GT)3-x3-(TC)3-x24-(GATT)3	7136	7185
3	(TG)3-x34-(GGT)3	8322	8371
4	(TG)3-x38-(AC)3	10361	10410
5	(TG)3-x26-(T)6-x4-(TCAG)3	16932	16985
6	(TAC)4-x2-(TG)3	19735	19754
7	(GT)3-x40-(T)6	20512	20563
8	(AC)4-x26-(GT)3	23090	23129
9	(GTT)3-x17-(TAT)4-x31-(TTG)4	24086	24168
10	(TG)3-x38-(CT)3	24266	24315
11	(CT)3-x29-(TATT)4-x1-(AC)3-x39-(AAACT)3	24420	24531

dMAX30

No.	Compound SSR	Start	End
1	(GT)3-x19-(G)6	89	119
2	(ATTG)3-x28-(TG)3	893	938
3	(AT)3-x16-(GT)3	2383	2410
4	(GT)3-x17-(AG)3	4182	4210
5	(GT)5-x8-(TAGA)3-x24-(AAG)3	7191	7252
6	(AGA)3-x24-(CT)3	11100	11138
7	(C)6-x15-(TA)3	16996	17022
8	(T)6-x14-(GTG)4	20933	20964
9	(ATT)3-x0-(TG)3	25216	25231
10	(AT)3-x23-(AG)4-x6-(GA)5	25858	25910

CV14

dMAX10	No.	Compound SSR	Start	End	11 (AC)4-x25-(GT)3-x22-(GTT)4	29158	29233
	1	(CA)3-x6-(TG)3	92	109			
	2	(TG)3-x9-(A)6	5301	5321			
dMAX20	No.	Compound SSR	Start	End			
	1	(CA)3-x6-(TG)3	92	109			
	2	(TG)3-x9-(A)6	5301	5321			
	3	(TC)3-x18-(GAG)3	7509	7541			
	4	(TG)3-x15-(GT)3	19941	19967			
	5	(GT)3-x19-(TTGC)3	21485	21521			
dMAX30	No.	Compound SSR	Start	End			
	1	(CA)3-x6-(TG)3	92	109			
	2	(AC)3-x23-(GTT)3	5191	5228			
	3	(TG)3-x9-(A)6	5301	5321			
	4	(TC)3-x18-(GAG)3	7509	7541			
	5	(TG)3-x15-(GT)3	19941	19967			
	6	(GT)3-x19-(TTGC)3	21485	21521			
dMAX40	No.	Compound SSR	Start	End			
	1	(CA)3-x6-(TG)3	92	109			
	2	(TA)3-x38-(TGA)4	2235	2290			
	3	(AC)3-x23-(GTT)3	5191	5228			
	4	(TG)3-x9-(A)6	5301	5321			
	5	(TC)3-x18-(GAG)3	7509	7541			
	6	(CAC)3-x36-(TA)5	17851	17907			
	7	(AC)3-x30-(TG)3-x15-(GT)3	19905	19967			
	8	(GT)3-x19-(TTGC)3	21485	21521			
	9	(CA)3-x34-(TTA)4	27975	28025			
dMAX50	No.	Compound SSR	Start	End			
	1	(CA)3-x6-(TG)3	92	109			
	2	(TA)3-x38-(TGA)4	2235	2290			
	3	(AC)3-x23-(GTT)3	5191	5228			
	4	(TG)3-x9-(A)6	5301	5321			
	5	(TC)3-x18-(GAG)3	7509	7541			
	6	(CAC)3-x36-(TA)5	17851	17907			
	7	(AC)3-x30-(TG)3-x15-(GT)3	19905	19967			
	8	(GT)3-x19-(TTGC)3	21485	21521			
	9	(CA)3-x34-(TTA)4	27975	28025			
CV28							
dMAX10	No.	Compound SSR	Start	End			
	1	(GT)3-x4-(TG)3	1811	1826			
	2	(TA)4-x2-(TGT)4	9596	9616			
	3	(TA)6-x0-(GA)3	13550	13566			
	4	(TC)3-x0-(TA)3	13751	13762			
	5	(TGA)3-x6-(TG)3	15577	15598			
	6	(TG)3-x9-(GTTAAT)3	20493	20525			
	7	(AGT)3-x6-(TG)3	25893	25914			
dMAX20							
	1	(TG)3-x19-(AT)3	1615	1645			
	2	(GT)3-x4-(TG)3	1811	1826			
	3	(TA)3-x13-(AT)4	2257	2283			
	4	(TA)4-x2-(TGT)4	9596	9616			
	5	(TA)6-x0-(GA)3	13550	13566			
	6	(TGC)3-x10-(TC)3-x0-(TA)3	13731	13762			
	7	(TGA)3-x6-(TG)3	15577	15598			
	8	(TG)3-x9-(GTTAAT)3	20493	20525			
	9	(CT)3-x18-(CTG)4	23442	23477			
	10	(AGT)3-x6-(TG)3	25893	25914			
	11	(AG)3-x16-(TG)3	30259	30289			
dMAX30	No.	Compound SSR	Start	End			
	1	(TG)3-x19-(AT)3	1615	1645			
	2	(GT)3-x4-(TG)3	1811	1826			
	3	(TA)3-x13-(AT)4	2257	2283			
	4	(GT)3-x22-(AC)3	5963	5996			
	5	(TA)4-x2-(TGT)4	9596	9616			
	6	(TA)6-x0-(GA)3	13550	13566			
	7	(TGC)3-x10-(TC)3-x0-(TA)3	13731	13762			
	8	(TGA)3-x6-(TG)3	15577	15598			
	9	(TG)3-x9-(GTTAAT)3	20493	20525			
	10	(AT)3-x23-(ATT)4	22870	22910			
	11	(CT)3-x18-(CTG)4-x26-(TG)3	23442	23509			
dMAX40	No.	Compound SSR	Start	End			
	1	(GT)3-x19-(G)6-x49-(GT)3		89	174		
	2	(ATTG)3-x28-(TG)3		893	938		
	3	(AT)3-x16-(GT)3		2383	2410		
	4	(GT)3-x17-(AG)3		4182	4210		
	5	(GT)5-x8-(TAGA)3-x24-(AAG)3		7191	7252		
	6	(TA)3-x38-(CG)3		7914	7963		
	7	(TGG)3-x34-(GT)3		8008	8057		
	8	(GA)3-x37-(AGA)3-x24-(CT)3		11057	11138		
	9	(T)6-x33-(AT)3		16208	16252		
	10	(C)6-x15-(TA)3		16996	17022		
	11	(T)6-x14-(GTG)4		20933	20964		
	12	(ATT)3-x0-(TG)3		25216	25231		
	13	(AT)3-x23-(AG)4-x6-(GA)5		25858	25910		
	14	(AC)4-x25-(GT)3-x22-(GTT)4		29158	29233		
dMAX50	No.	Compound SSR	Start	End			
	1	(GT)3-x19-(G)6-x49-(GT)3		89	174		
	2	(ATTG)3-x28-(TG)3		893	938		
	3	(AT)3-x16-(GT)3		2383	2410		
	4	(GT)3-x17-(AG)3		4182	4210		
	5	(GT)5-x8-(TAGA)3-x24-(AAG)3		7191	7252		
	6	(TA)3-x38-(CG)3-x44-(TGG)3-x34-(GT)3		7914	8057		
	7	(GA)3-x37-(AGA)3-x24-(CT)3		11057	11138		
	8	(T)6-x33-(AT)3		16208	16252		
	9	(C)6-x15-(TA)3		16996	17022		
	10	(T)6-x14-(GTG)4		20933	20964		
	11	(ATG)4-x40-(TG)3		22833	22890		
	12	(ATT)3-x0-(TG)3		25216	25231		
	13	(AT)3-x23-(AG)4-x6-(GA)5		25858	25910		
	14	(AC)4-x25-(GT)3-x22-(GTT)4		29158	29233		
CV53							
dMAX10	No.	Compound SSR	Start	End			
	1	(AG)3-x9-(TC)3	19386	19406			
dMAX20	No.	Compound SSR	Start	End			
	1	(AG)3-x9-(TC)3	19386	19406			
	2	(CT)3-x13-(GT)4	21005	21031			
	3	(GTT)4-x11-(TG)3	21173	21201			
dMAX30	No.	Compound SSR	Start	End			
	1	(CAA)3-x25-(GT)3	10371	10411			
	2	(TTG)4-x21-(CA)3	14190	14227			
	3	(GT)3-x24-(TC)3	19275	19310			
	4	(AG)3-x9-(TC)3	19386	19406			
	5	(CT)3-x13-(GT)4	21005	21031			
	6	(GTT)4-x11-(TG)3	21173	21201			
dMAX40	No.	Compound SSR	Start	End			
	1	(CAA)3-x25-(GT)3	10371	10411			
	2	(GA)3-x30-(AT)3	13480	13521			
	3	(TTG)4-x21-(CA)3	14190	14227			
	4	(AC)4-x36-(TTA)3	17233	17286			
	5	(GT)3-x24-(TC)3	19275	19310			
	6	(AG)3-x9-(TC)3	19386	19406			
	7	(ATT)4-x38-(CT)3-x13-(GT)4	20956	21031			
	8	(GTT)4-x11-(TG)3	21173	21201			
	9	(AG)3-x30-(TC)3	21299	21340			
dMAX50	No.	Compound SSR	Start	End			
	1	(CA)3-x49-(ATG)3	3142	3205			
	2	(CAA)3-x25-(GT)3	10371	10411			
	3	(GA)3-x30-(AT)3	13480	13521			
	4	(TTG)4-x21-(CA)3	14190	14227			
	5	(AC)4-x36-(TTA)3	17233	17286			
	6	(TGA)4-x42-(TAC)4	18050	18114			
	7	(GT)3-x24-(TC)3	19275	19310			
	8	(AG)3-x9-(TC)3	19386	19406			
	9	(AT)3-x40-(ATT)4-x38-(CT)3-x13-(GT)4	20910	21031			
	10	(GTT)4-x11-(TG)3-x44-(CAG)3-x43-(AG)3-x30-(TC)3	21173	21340			
	11	(GT)3-x40-(AC)3	22096	22147			
	12	(AC)3-x47-(TC)4	22490	22550			
	13	(TACA)3-x44-(CA)3	25773	25834			
CV55							

		12 (AGT)3-x6-(TG)3	25893	25914	dMAX10				
		13 (AG)3-x16-(TGG)3	30259	30289		No.	Compound SSR	Start	End
dMAX40							1 (TGA)3-x1-(ATT)3	2937	2955
	No.	Compound SSR	Start	End			2 (GTT)3-x4-(AC)3-x8-(GTT)4	7159	7197
		1 (TG)3-x19-(AT)3	1615	1645			3 (AC)3-x8-(GT)5	12327	12350
		2 (GT)3-x4-(TG)3-x26-(GT)3	1811	1858			4 (AT)3-x1-(CCA)4	19022	19039
		3 (TA)3-x13-(AT)4	2257	2283	dMAX20				
		4 (GT)3-x22-(AC)3	5963	5996		No.	Compound SSR	Start	End
		5 (TA)4-x2-(TGT)4	9596	9616			1 (AC)3-x19-(CT)3	2620	2650
		6 (TA)6-x0-(GA)3	13550	13566			2 (TGA)3-x1-(ATT)3	2937	2955
		7 (TGC)3-x10-(TC)3-x0-(TA)3	13731	13762			3 (GTT)3-x4-(AC)3-x8-(GTT)4	7159	7197
		8 (TGA)3-x6-(TG)3	15577	15598			4 (AG)3-x17-(TA)3	8280	8308
		9 (TG)3-x9-(GTTAAT)3	20493	20525			5 (AT)3-x14-(TA)4	10321	10348
		10 (AT)3-x23-(ATT)4	22870	22910			6 (AC)3-x8-(GT)5	12327	12350
		11 (CT)3-x18-(CTG)4-x26-(TG)3	23442	23509			7 (TGT)3-x12-(TG)3	12470	12497
		12 (AGT)3-x6-(TG)3	25893	25914			8 (CA)3-x14-(CA)3	17877	17902
		13 (AG)3-x16-(TGG)3	30259	30289			9 (AT)3-x1-(CCA)4	19022	19039
dMAX50					dMAX30				
	No.	Compound SSR	Start	End		No.	Compound SSR	Start	End
		1 (GT)4-x43-(TA)3	614	670			1 (AC)3-x19-(CT)3	2620	2650
		2 (TG)3-x19-(AT)3	1615	1645			2 (TGA)3-x1-(ATT)3	2937	2955
		3 (GT)3-x4-(TG)3-x26-(GT)3-x40-(GC)3	1811	1904			3 (GTT)3-x4-(AC)3-x8-(GTT)4	7159	7197
		4 (TA)3-x13-(AT)4	2257	2283			4 (AG)3-x17-(TA)3	8280	8308
		5 (GT)3-x22-(AC)3	5963	5996			5 (AC)3-x20-(GA)3	8522	8553
		6 (AG)3-x49-(A)6	6288	6348			6 (AT)3-x14-(TA)4	10321	10348
		7 (TA)4-x2-(TGT)4	9596	9616			7 (AC)3-x8-(GT)5	12327	12350
		8 (AAT)3-x43-(CTT)3	9883	9944			8 (TGT)3-x12-(TG)3	12470	12497
		9 (TA)6-x0-(GA)3	13550	13566			9 (CA)3-x14-(CA)3	17877	17902
		10 (TGC)3-x10-(TC)3-x0-(TA)3	13731	13762			10 (AT)3-x1-(CCA)4	19022	19039
		11 (TGA)3-x6-(TG)3	15577	15598	dMAX40				
		12 (TG)3-x9-(GTTAAT)3	20493	20525		No.	Compound SSR	Start	End
		13 (GTT)4-x45-(ATG)4	22126	22194			1 (TTG)4-x31-(AG)3	2510	2558
		14 (AT)3-x23-(ATT)4	22870	22910			2 (AC)3-x19-(CT)3	2620	2650
		15 (CT)3-x18-(CTG)4-x26-(TG)3	23442	23509			3 (TGA)3-x1-(ATT)3	2937	2955
		16 (AGT)3-x6-(TG)3	25893	25914			4 (GA)3-x37-(GA)4	7038	7088
		17 (AG)3-x16-(TGG)3	30259	30289			5 (GTT)3-x4-(AC)3-x8-(GTT)4	7159	7197
CV30							6 (AG)3-x17-(TA)3	8280	8308
dMAX10							7 (AC)3-x20-(GA)3	8522	8553
	No.	Compound SSR	Start	End			8 (AT)3-x14-(TA)4	10321	10348
		1 (TA)4-x2-(TGT)4	9595	9615			9 (AG)3-x30-(TG)3	12102	12143
		2 (TA)6-x0-(GA)3	13549	13565			10 (AC)3-x8-(GT)5	12327	12350
		3 (TC)3-x0-(TA)3	13750	13761			11 (TGT)3-x12-(TG)3	12470	12497
		4 (TGA)3-x6-(TG)3	15576	15597			12 (CA)3-x14-(CA)3	17877	17902
		5 (TG)3-x4-(TGGA)3	19244	19266			13 (AT)3-x1-(CCA)4	19022	19039
		6 (TG)3-x9-(GTTAAT)3	20495	20527			14 (CT)3-x31-(GCT)4	21688	21736
		7 (AGT)3-x6-(TG)3	25865	25886	dMAX50				
dMAX20						No.	Compound SSR	Start	End
	No.	Compound SSR	Start	End			1 (TTG)4-x31-(AG)3	2510	2558
		1 (TG)3-x19-(AT)3	1614	1644			2 (AC)3-x19-(CT)3	2620	2650
		2 (TA)3-x13-(AT)4	2256	2282			3 (TGA)3-x1-(ATT)3	2937	2955
		3 (TA)4-x2-(TGT)4	9595	9615			4 (GA)3-x37-(GA)4	7038	7088
		4 (TA)6-x0-(GA)3	13549	13565			5 (GTT)3-x4-(AC)3-x8-(GTT)4	7159	7197
		5 (TGC)3-x10-(TC)3-x0-(TA)3	13730	13761			6 (AG)3-x17-(TA)3	8280	8308
		6 (TGA)3-x6-(TG)3	15576	15597			7 (AC)3-x20-(GA)3	8522	8553
		7 (TG)3-x4-(TGGA)3	19244	19266			8 (AT)3-x14-(TA)4	10321	10348
		8 (TG)3-x9-(GTTAAT)3	20495	20527			9 (AG)3-x30-(TG)3	12102	12143
		9 (AGT)3-x6-(TG)3	25865	25886			10 (AC)3-x8-(GT)5	12327	12350
		10 (AG)3-x16-(TGG)3	29941	29971			11 (TGT)3-x12-(TG)3	12470	12497
dMAX30							12 (AT)4-x40-(ATC)4	13756	13814
	No.	Compound SSR	Start	End			13 (CA)3-x14-(CA)3	17877	17902
		1 (TG)3-x19-(AT)3	1614	1644			14 (AT)3-x1-(CCA)4	19022	19039
		2 (TA)3-x13-(AT)4	2256	2282			15 (CT)3-x31-(GCT)4	21688	21736
		3 (GT)3-x22-(AC)3	5962	5995	CV57				
		4 (TA)4-x2-(TGT)4	9595	9615	dMAX10				
		5 (TA)6-x0-(GA)3	13549	13565		No.	Compound SSR	Start	End
		6 (TGC)3-x10-(TC)3-x0-(TA)3	13730	13761			1 (TG)3-x6-(GTG)3	93	114
		7 (TGA)3-x6-(TG)3	15576	15597			2 (AC)3-x7-(TGT)4	6983	7007
		8 (TG)3-x4-(TGGA)3	19244	19266			3 (TA)3-x1-(GT)3	14034	14046
		9 (TG)3-x9-(GTTAAT)3	20495	20527			4 (AC)3-x6-(CAA)3	21207	21227
		10 (AT)3-x23-(ATT)4	22872	22912	dMAX20				
		11 (CT)3-x21-(CTG)3-x26-(TG)3	23444	23511		No.	Compound SSR	Start	End
		12 (AGT)3-x6-(TG)3	25865	25886			1 (TG)3-x6-(GTG)3	93	114
		13 (TAC)3-x23-(TGT)4	27222	27265			2 (GAT)4-x15-(GAT)4	2701	2739
		14 (AG)3-x16-(TGG)3	29941	29971			3 (AC)3-x7-(TGT)4	6983	7007
dMAX40							4 (TA)3-x1-(GT)3	14034	14046
	No.	Compound SSR	Start	End			5 (GTT)4-x17-(AT)3	15202	15235
		1 (TG)3-x19-(AT)3	1614	1644			6 (AC)3-x6-(CAA)3	21207	21227
		2 (TA)3-x13-(AT)4	2256	2282	dMAX30				
		3 (GT)3-x22-(AC)3	5962	5995		No.	Compound SSR	Start	End
							1 (TG)3-x6-(GTG)3	93	114

4	(TA)4-x2-(TGT)4	9595	9615	2	(GAT)4-x15-(GAT)4	2701	2739
5	(TA)6-x0-(GA)3	13549	13565	3	(TGT)4-x20-(ATT)4	5997	6039
6	(TGC)3-x10-(TC)3-x0-(TA)3	13730	13761	4	(AC)3-x7-(TGT)4	6983	7007
7	(TGA)3-x6-(TG)3	15576	15597	5	(CT)3-x24-(CA)3-x28-(TGTT)4	7649	7729
8	(TG)3-x4-(TGGA)3	19244	19266	6	(TA)3-x1-(GT)3	14034	14046
9	(TG)3-x9-(GTTAAT)3	20495	20527	7	(GTT)4-x17-(AT)3	15202	15235
10	(AT)3-x23-(ATT)4	22872	22912	8	(AC)3-x6-(CAA)3	21207	21227
11	(CT)3-x21-(CTG)3-x26-(TG)3	23444	23511				
12	(AGT)3-x6-(TG)3	25865	25886				
13	(TAC)3-x23-(TGT)4	27222	27265				
14	(AG)3-x16-(TGG)3	29941	29971				

dMAX50

No.	Compound SSR	Start	End
1	(GT)4-x43-(TA)3	613	669
2	(TG)3-x19-(AT)3	1614	1644
3	(TA)3-x13-(AT)4	2256	2282
4	(GT)3-x22-(AC)3	5962	5995
5	(AG)3-x49-(A)6	6287	6347
6	(T)6-x44-(TTG)4	9284	9344
7	(TA)4-x2-(TGT)4	9595	9615
8	(AAT)3-x43-(CTT)3	9882	9943
9	(TA)6-x0-(GA)3	13549	13565
10	(TGC)3-x10-(TC)3-x0-(TA)3	13730	13761
11	(TGA)3-x6-(TG)3	15576	15597
12	(TG)3-x4-(TGGA)3	19244	19266
13	(TG)3-x9-(GTTAAT)3	20495	20527
14	(GTT)4-x45-(ATG)4	22128	22196
15	(AT)3-x23-(ATT)4	22872	22912
16	(CT)3-x21-(CTG)3-x26-(TG)3	23444	23511
17	(AGT)3-x6-(TG)3	25865	25886
18	(TAC)3-x23-(TGT)4	27222	27265
19	(AG)3-x16-(TGG)3	29941	29971

dMAX40

No.	Compound SSR	Start	End
1	(TG)3-x6-(GTG)3	93	114
2	(GAT)4-x15-(GAT)4	2701	2739
3	(TGT)4-x20-(ATT)4	5997	6039
4	(AC)3-x7-(TGT)4	6983	7007
5	(CT)3-x24-(CA)3-x28-(TGTT)4	7649	7729
6	(TA)3-x38-(GT)3	9295	9344
7	(TA)3-x1-(GT)3	14034	14046
8	(TTG)4-x31-(AC)3	14241	14288
9	(GTT)4-x17-(AT)3	15202	15235
10	(T)6-x33-(TC)3	16811	16855
11	(AC)3-x6-(CAA)3	21207	21227

dMAX50

No.	Compound SSR	Start	End
1	(TG)3-x6-(GTG)3	93	114
2	(GAT)4-x15-(GAT)4	2701	2739
3	(TGT)4-x20-(ATT)4	5997	6039
4	(AC)3-x7-(TGT)4	6983	7007
5	(CT)3-x24-(CA)3-x28-(TGTT)4	7649	7729
6	(TA)3-x38-(GT)3	9295	9344
7	(TA)3-x1-(GT)3	14034	14046
8	(TTG)4-x31-(AC)3	14241	14288
9	(GTT)4-x17-(AT)3	15202	15235
10	(T)6-x33-(TC)3	16811	16855
11	(AC)3-x6-(CAA)3	21207	21227

CV32

dMAX10

No.	Compound SSR	Start	End
1	(T)7-x3-(TTA)3-x2-(GT)3	2236	2262
2	(T)6-x1-(TA)3	7102	7114
3	(TA)6-x0-(T)6	8739	8755
4	(GTT)3-x1-(AT)3	11686	11702
5	(AT)4-x0-(A)6	14093	14106
6	(AT)3-x0-(A)7	16221	16233
7	(T)7-x1-(T)7	21783	21797
8	(TTTAT)3-x9-(TA)3	22682	22712
9	(TTC)3-x4-(T)7	25641	25662
10	(T)6-x3-(TGT)3	26896	26913
11	(TTG)3-x1-(T)6	27458	27473

CV58

dMAX10

No.	Compound SSR	Start	End
1	(T)6-x8-(TGG)3	3352	3375
2	(GT)3-x1-(T)6	3452	3464
3	(AAC)4-x0-(T)8	14971	14990
4	(T)6-x3-(T)6	16186	16200
5	(G)6-x2-(TTG)3	23649	23665
6	(TGA)4-x7-(ATG)3	27456	27483

dMAX20

No.	Compound SSR	Start	End
1	(T)6-x8-(TGG)3-x11-(TGG)4	3352	3398
2	(GT)3-x1-(T)6	3452	3464
3	(T)6-x12-(GTT)4	7705	7734
4	(TA)5-x17-(TA)3	8994	9026
5	(AAC)4-x0-(T)8	14971	14990
6	(T)6-x3-(T)6	16186	16200
7	(G)6-x2-(TTG)3	23649	23665
8	(TGA)4-x7-(ATG)3	27456	27483

dMAX20

1	(CTA)3-x13-(T)6	630	657
2	(T)7-x3-(TTA)3-x2-(GT)3	2236	2262
3	(T)6-x1-(TA)3	7102	7114
4	(TA)6-x0-(T)6	8739	8755
5	(GTT)3-x1-(AT)3	11686	11702
6	(AT)4-x0-(A)6	14093	14106
7	(AT)3-x0-(A)7	16221	16233
8	(GA)4-x13-(A)7	18544	18571
9	(AG)3-x11-(TG)3	18772	18794
10	(T)6-x19-(TG)3	19479	19509
11	(GTA)4-x15-(TTAT)3	20669	20707
12	(T)7-x1-(T)7	21783	21797
13	(T)6-x17-(CT)3	22480	22508
14	(TTTAT)3-x9-(TA)3	22682	22712
15	(T)6-x18-(TAT)4	22837	22871
16	(TTC)3-x4-(T)7	25641	25662
17	(T)6-x3-(TGT)3	26896	26913
18	(TTG)3-x1-(T)6	27458	27473

dMAX30

No.	Compound SSR	Start	End
1	(T)6-x29-(T)6	1969	2009
2	(T)6-x8-(TGG)3-x11-(TGG)4	3352	3398
3	(GT)3-x1-(T)6	3452	3464
4	(TG)6-x27-(GT)3	5178	5222
5	(TG)3-x29-(TA)3	5924	5964
6	(T)6-x12-(GTT)4	7705	7734
7	(TG)3-x24-(TGT)3	8906	8944
8	(TA)5-x17-(TA)3	8994	9026
9	(GTT)4-x28-(TTG)4	11432	11484
10	(AAC)4-x0-(T)8	14971	14990
11	(T)6-x3-(T)6	16186	16200
12	(AGTTA)3-x22-(T)7	20721	20764
13	(CTT)3-x27-(AG)3	21097	21139
14	(G)6-x2-(TTG)3	23649	23665
15	(A)6-x23-(T)6	24774	24808
16	(TGA)4-x7-(ATG)3	27456	27483
17	(TGG)4-x25-(T)7	27674	27717

dMAX30

1	(CTA)3-x13-(T)6	630	657
2	(AG)3-x27-(TGA)4	733	777
3	(T)7-x3-(TTA)3-x2-(GT)3	2236	2262
4	(T)6-x1-(TA)3	7102	7114
5	(TA)6-x0-(T)6	8739	8755
6	(T)6-x24-(TTA)3-x22-(TA)3	10624	10691
7	(GTT)3-x1-(AT)3	11686	11702
8	(AT)4-x0-(A)6	14093	14106
9	(AT)3-x0-(A)7	16221	16233
10	(GA)4-x13-(A)7	18544	18571
11	(AG)3-x11-(TG)3	18772	18794
12	(T)6-x19-(TG)3	19479	19509
13	(GTA)4-x15-(TTAT)3	20669	20707
14	(T)7-x1-(T)7	21783	21797

dMAX40

No.	Compound SSR	Start	End
1	(T)6-x29-(T)6	1969	2009
2	(ATT)3-x30-(ACT)4	2715	2765
3	(T)6-x8-(TGG)3-x11-(TGG)4	3352	3398
4	(GT)3-x1-(T)6	3452	3464
5	(TG)6-x27-(GT)3	5178	5222
6	(T)6-x39-(CAAT)3-x39-(TG)3-x29-(TA)3	5829	5964
7	(T)6-x37-(AG)3	7238	7286

15	(T)6-x17-(CT)3	22480	22508
16	(TTTAT)3-x9-(TA)3	22682	22712
17	(T)6-x18-(TAT)4	22837	22871
18	(TTC)3-x4-(T)7	25641	25662
19	(T)6-x3-(TGT)3	26896	26913
20	(TTTTAG)3-x21-(TTG)3-x1-(T)6	27419	27473

dMAX40

1	(CTA)3-x13-(T)6	630	657
2	(AG)3-x27-(TGA)4	733	777
3	(T)7-x3-(TTA)3-x2-(GT)3	2236	2262
4	(TGG)3-x31-(A)6	4384	4429
5	(T)6-x37-(T)7	5401	5450
6	(T)6-x1-(TA)3	7102	7114
7	(TA)6-x0-(T)6	8739	8755
8	(T)6-x24-(TTA)3-x22-(TA)3	10624	10691
9	(GTT)3-x1-(AT)3	11686	11702
10	(AT)4-x0-(A)6	14093	14106
11	(AT)3-x0-(A)7	16221	16233
12	(GA)4-x13-(A)7	18544	18571
13	(AG)3-x11-(TG)3	18772	18794
14	(T)6-x19-(TG)3	19479	19509
15	(GTA)4-x15-(TTAT)3	20669	20707
16	(TA)3-x30-(T)6	21392	21433
17	(T)7-x1-(T)7	21783	21797
18	(T)6-x17-(CT)3	22480	22508
19	(TTTAT)3-x9-(TA)3	22682	22712
20	(T)6-x18-(TAT)4-x39-(TA)3-x34-(ATT)4	22837	22962
21	(TTC)3-x4-(T)7	25641	25662
22	(T)6-x3-(TGT)3	26896	26913
23	(TTTTAG)3-x21-(TTG)3-x1-(T)6	27419	27473
24	(CA)3-x30-(TA)3	28047	28088

dMAX50

	(TG)5-x40-(TC)3	103	158
2	(CTA)3-x13-(T)6	630	657
3	(AG)3-x27-(TGA)4	733	777
4	(T)7-x3-(TTA)3-x2-(GT)3	2236	2262
5	(TGG)3-x31-(A)6	4384	4429
6	(T)6-x37-(T)7	5401	5450
7	(TA)5-x44-(T)6-x1-(TA)3	7048	7114
8	(TA)6-x0-(T)6	8739	8755
9	(T)6-x24-(TTA)3-x22-(TA)3	10624	10691
10	(GTT)3-x1-(AT)3	11686	11702
11	(AT)4-x0-(A)6	14093	14106
12	(TGA)3-x40-(TA)3	15836	15891
13	(AT)3-x0-(A)7	16221	16233
14	(GA)4-x13-(A)7	18544	18571
15	(AG)3-x11-(TG)3	18772	18794
16	(T)6-x19-(TG)3	19479	19509
17	(GTA)4-x15-(TTAT)3	20669	20707
18	(TA)3-x30-(T)6	21392	21433
19	(T)7-x1-(T)7	21783	21797
20	(T)6-x17-(CT)3	22480	22508
21	(TTTAT)3-x9-(TA)3	22682	22712
22	(T)6-x18-(TAT)4-x39-(TA)3-x34-(ATT)4	22837	22962
23	(TTC)3-x4-(T)7	25641	25662
24	(T)6-x3-(TGT)3	26896	26913
25	(TTTTAG)3-x21-(TTG)3-x1-(T)6	27419	27473
26	(CA)3-x30-(TA)3	28047	28088

CV61

dMAX10

No.	Compound SSR	Start	End
1	(GAA)4-x9-(GAA)4	3053	3085
2	(AAG)3-x8-(GAT)3	3189	3214
3	(CAA)3-x1-(TA)3	4227	4243
4	(TAT)3-x7-(AC)3	6172	6194
5	(AC)3-x7-(TC)3	18554	18572
6	(GT)6-x3-(TTAT)3	20487	20512

dMAX20

No.	Compound SSR	Start	End
1	(TG)3-x11-(GCT)3	85	111
2	(GAA)4-x9-(GAA)4	3053	3085
3	(AAG)3-x8-(GAT)3	3189	3214
4	(CAA)3-x1-(TA)3	4227	4243
5	(TAT)3-x7-(AC)3	6172	6194
6	(CT)3-x11-(TG)3	15712	15734
7	(AC)3-x7-(TC)3	18554	18572
8	(GT)6-x3-(TTAT)3	20487	20512
9	(CA)3-x12-(TA)3	29546	29569

dMAX30

No.	Compound SSR	Start	End
1	(TG)3-x11-(GCT)3	85	111

8	(T)6-x12-(GTT)4	7705	7734
9	(TG)3-x24-(TGT)3	8906	8944
10	(TA)5-x17-(TA)3	8994	9026
11	(TGT)4-x28-(TTG)4	11432	11484
12	(AAC)4-x0-(T)8-x38-(AT)3	14971	15034
13	(T)6-x3-(T)6	16186	16200
14	(AGTTA)3-x22-(T)7	20721	20764
15	(CTT)3-x27-(AG)3	21097	21139
16	(G)6-x2-(TTG)3	23649	23665
17	(A)6-x23-(T)6	24774	24808
18	(TTTAG)3-x31-(T)6	25645	25695
19	(TGA)4-x7-(ATG)3	27456	27483
20	(TGG)4-x25-(T)7-x38-(AG)5	27674	27765

dMAX50

No.	Compound SSR	Start	End
1	(T)6-x29-(T)6	1969	2009
2	(ATT)3-x30-(ACT)4	2715	2765
3	(T)6-x8-(TGG)3-x11-(TGG)4	3352	3398
4	(GT)3-x1-(T)6	3452	3464
5	(TG)6-x27-(GT)3	5178	5222
6	(T)6-x39-(CAAT)3-x39-(TG)3-x29-(TA)3	5829	5964
7	(T)6-x37-(AG)3	7238	7286
8	(T)6-x12-(GTT)4	7705	7734
9	(T)6-x43-(T)6	8500	8554
10	(TG)3-x24-(TGT)3-x49-(TA)5-x17-(TA)3	8906	9026
11	(TGT)4-x28-(TTG)4	11432	11484
12	(AAC)4-x0-(T)8-x38-(AT)3	14971	15034
13	(T)6-x3-(T)6	16186	16200
14	(AGTTA)3-x22-(T)7	20721	20764
15	(CTT)3-x27-(AG)3	21097	21139
16	(GT)4-x45-(AT)3	21494	21552
17	(G)6-x2-(TTG)3	23649	23665
18	(A)6-x23-(T)6	24774	24808
19	(TTTAG)3-x31-(T)6	25645	25695
20	(TGA)4-x7-(ATG)3	27456	27483
21	(TGG)4-x25-(T)7-x38-(AG)5	27674	27765
22	(AAT)3-x42-(AAT)3	27918	27977

CV60

dMAX10

No.	Compound SSR	Start	End
1	(CCAACA)5-x-5-(CAA)3	3972	4004
2	(CCA)3-x4-(CA)3	4175	4195
3	(CA)3-x7-(CTC)4	6353	6376
4	(AC)3-x2-(TC)3	8523	8536
5	(ACA)3-x2-(AC)8-x5-(ACCA)3	9704	9746
6	(AC)3-x3-(TCA)4	10942	10961
7	(TCA)3-x9-(CA)6-x1-(AC)3	12451	12486
8	(TTCA)3-x0-(TCA)4	16003	16024
9	(ATG)3-x2-(ACA)4	25942	25964

dMAX20

No.	Compound SSR	Start	End
1	(CAC)4-x13-(AC)3	1787	1817
2	(CCAACA)5-x-5-(CAA)3	3972	4004
3	(CCA)3-x4-(CA)3	4175	4195
4	(AC)3-x17-(CA)3	4500	4528
5	(CA)3-x7-(CTC)4	6353	6376
6	(CAA)3-x16-(CA)3	8445	8476
7	(AC)3-x2-(TC)3	8523	8536
8	(ACA)3-x2-(AC)8-x5-(ACCA)3	9704	9746
9	(AC)3-x3-(TCA)4	10942	10961
10	(CAA)4-x16-(CT)3	11966	11999
11	(TCA)3-x9-(CA)6-x1-(AC)3	12451	12486
12	(TTCA)3-x0-(TCA)4	16003	16024
13	(AC)3-x10-(CA)3	19085	19106
14	(CA)8-x12-(AAC)4	22102	22141
15	(AC)3-x11-(T)6	23293	23315
16	(ATG)3-x2-(ACA)4-x12-(ACC)3	25942	25986

dMAX30

No.	Compound SSR	Start	End
1	(CAC)4-x13-(AC)3	1787	1817
2	(CCAACA)5-x-5-(CAA)3	3972	4004
3	(CCA)3-x4-(CA)3	4175	4195
4	(AC)3-x17-(CA)3	4500	4528
5	(CA)4-x21-(AC)3	5330	5364
6	(CA)3-x7-(CTC)4	6353	6376
7	(AAC)4-x26-(TCA)4	7181	7229
8	(AC)3-x24-(AC)3	8362	8397
9	(CAA)3-x16-(CA)3	8445	8476
10	(AC)3-x2-(TC)3	8523	8536
11	(CACGTA)3-x28-(ACA)3-x2-(AC)8-x5-(ACCA)3	9657	9746

2	(GAA)4-x9-(GAA)4	3053	3085
3	(AAG)3-x8-(GAT)3	3189	3214
4	(CAA)3-x1-(TA)3	4227	4243
5	(TAT)3-x7-(AC)3	6172	6194
6	(CT)3-x11-(TG)3	15712	15734
7	(TG)3-x21-(TA)3	16484	16516
8	(AC)3-x7-(TC)3	18554	18572
9	(GT)6-x3-(TTAT)3	20487	20512
10	(CAA)4-x22-(CTG)3	28988	29030
11	(CA)3-x12-(TA)3-x24-(AT)3	29546	29599

12	(AC)3-x3-(TCA)4	10942	10961
13	(CAA)4-x16-(CT)3	11966	11999
14	(CTA)4-x26-(TCA)3-x9-(CA)6-x1-(AC)3	12413	12486
15	(TG)3-x25-(CA)3	14363	14399
16	(TTCA)3-x0-(TCA)4	16003	16024
17	(AC)3-x10-(CA)3	19085	19106
18	(CA)8-x12-(AAC)4	22102	22141
19	(AC)3-x11-(T)6	23293	23315
20	(ATG)3-x2-(ACA)4-x12-(ACC)3	25942	25986
21	(TA)3-x25-(ATT)4	26502	26544

dMAX40

No.	Compound SSR	Start	End
1	(TG)3-x11-(GCT)3	85	111
2	(GAA)4-x9-(GAA)4	3053	3085
3	(AAG)3-x8-(GAT)3	3189	3214
4	(CAA)3-x1-(TA)3	4227	4243
5	(TAT)3-x7-(AC)3	6172	6194
6	(CT)3-x11-(TG)3	15712	15734
7	(TG)3-x21-(TA)3	16484	16516
8	(AC)3-x7-(TC)3	18554	18572
9	(GT)6-x3-(TTAT)3	20487	20512
10	(TC)3-x33-(TA)3	25148	25192
11	(CAA)4-x22-(CTG)3	28988	29030
12	(CA)3-x12-(TA)3-x24-(AT)3	29546	29599

dMAX40

No.	Compound SSR	Start	End
1	(CT)3-x37-(T)6	445	493
2	(CAA)11-x36-(AC)3	1399	1473
3	(CAC)4-x13-(AC)3	1787	1817
4	(CCAACA)5-x-5-(CAA)3	3972	4004
5	(CCA)3-x4-(CA)3	4175	4195
6	(AC)3-x17-(CA)3	4500	4528
7	(CA)4-x21-(AC)3	5330	5364
8	(CA)3-x7-(CTC)4	6353	6376
9	(AAC)4-x26-(TCA)4	7181	7229
10	(TC)3-x35-(AC)3-x24-(AC)3	8321	8397
11	(CAA)3-x16-(CA)3	8445	8476
12	(AC)3-x2-(TC)3	8523	8536
13	(CACGTA)3-x28-(ACA)3-x2-(AC)8-x5-(ACCA)3	9657	9746
14	(ACA)3-x37-(CA)3	9957	10008
15	(AC)3-x3-(TCA)4	10942	10961
16	(T)6-x38-(AC)3	11639	11688
17	(CAA)4-x16-(CT)3	11966	11999
18	(CTA)4-x26-(TCA)3-x9-(CA)6-x1-(AC)3-x39-(TCA)4	12413	12536
19	(TG)3-x25-(CA)3	14363	14399
20	(C)6-x39-(A)6	15816	15866
21	(TTCA)3-x0-(TCA)4	16003	16024
22	(CA)3-x32-(AC)3-x10-(CA)3	19047	19106
23	(AC)4-x33-(CA)3	19368	19414
24	(CA)8-x12-(AAC)4	22102	22141
25	(AC)3-x11-(T)6	23293	23315
26	(CCA)4-x36-(CAA)3	24849	24905
27	(ATG)3-x2-(ACA)4-x12-(ACC)3	25942	25986
28	(TA)3-x25-(ATT)4	26502	26544

dMAX50

No.	Compound SSR	Start	End
1	(TG)3-x11-(GCT)3	85	111
2	(GAA)4-x9-(GAA)4	3053	3085
3	(AAG)3-x8-(GAT)3	3189	3214
4	(CAA)3-x1-(TA)3	4227	4243
5	(AG)3-x44-(TAT)3-x7-(AC)3	6122	6194
6	(TGA)4-x41-(AT)3	13896	13954
7	(CT)3-x11-(TG)3	15712	15734
8	(TG)3-x21-(TA)3	16484	16516
9	(GCAC)3-x43-(GT)3	17455	17514
10	(AC)3-x7-(TC)3	18554	18572
11	(GT)6-x3-(TTAT)3	20487	20512
12	(TC)3-x33-(TA)3	25148	25192
13	(CAA)4-x22-(CTG)3	28988	29030
14	(CA)3-x12-(TA)3-x24-(AT)3	29546	29599

dMAX50

No.	Compound SSR	Start	End
1	(CT)3-x37-(T)6	445	493
2	(CAA)11-x36-(AC)3	1399	1473
3	(CAC)4-x13-(AC)3	1787	1817
4	(CCAACA)5-x-5-(CAA)3	3972	4004
5	(CCA)3-x4-(CA)3	4175	4195
6	(AC)3-x17-(CA)3	4500	4528
7	(CA)4-x21-(AC)3	5330	5364
8	(CA)3-x7-(CTC)4	6353	6376
9	(AAC)4-x26-(TCA)4	7181	7229
10	(TC)3-x35-(AC)3-x24-(AC)3-x47-(CAA)3-x16-(CA)3-x46-	8321	8397
11	(TG)3-x41-(CA)3	9409	9461
12	(CACGTA)3-x28-(ACA)3-x2-(AC)8-x5-(ACCA)3	9657	9746
13	(ACA)3-x37-(CA)3	9957	10008
14	(AC)3-x3-(TCA)4	10942	10961
15	(T)6-x38-(AC)3	11639	11688
16	(CAA)4-x16-(CT)3	11966	11999
17	(CTA)4-x26-(TCA)3-x9-(CA)6-x1-(AC)3-x39-(TCA)4	12413	12536
18	(TG)3-x25-(CA)3	14363	14399
19	(C)6-x39-(A)6	15816	15866
20	(TTCA)3-x0-(TCA)4	16003	16024
21	(CA)3-x32-(AC)3-x10-(CA)3	19047	19106
22	(AC)4-x33-(CA)3	19368	19414
23	(CA)8-x12-(AAC)4	22102	22141
24	(AC)3-x11-(T)6	23293	23315
25	(CCA)4-x36-(CAA)3	24849	24905
26	(ATG)3-x2-(ACA)4-x12-(ACC)3-x40-(A)6	25942	26032
27	(TA)3-x25-(ATT)4	26502	26544

Supplementary file 4: SSR density (SSR/Kb) on genes of studied genomes

Genome Id	SSR Incidence	Gene/Protein Name	Gene SSR Incidence	Gene Length(kb)	SSR Density	Mono SSR AT%	Host
CV32	140					100	Homo sapiens (Human)
		hemagglutinin-esterase glycoprotein	12	1.161	10.33592		
		membrane glycoprotein	2	0.672	2.97619		
		non-structural protein	1	0.33	3.030303		
		nucleocapsid phosphoprotein	2	1.326	1.508296		
		ORF1ab polyprotein	97	21.549	4.501369		
		small membrane protein	3	0.249	12.04819		
		spike glycoprotein	19	4.071	4.667158		
CV28	122					100	Bos taurus (Cow)
		ORF1ab polyprotein	88	21.285	4.134367		
CV30	121					100	Homo sapiens (Human)
		envelope protein	1	0.255	3.921569		
		hemagglutinin-esterase	8	1.275	6.27451		
		membrane protein	1	0.693	1.443001		
		ns2	3	0.837	3.584229		
		nucleocapsid protein	4	1.347	2.969562		
		Orf1ab	87	21.288	4.086809		
		spike surface glycoprotein	15	4.062	3.692762		
CV36	116					100	Rousettus leschenaultii, Chiroptera (Bat)
		hypothetical protein	11	1.671	6.582885		
		nucleocapsid phosphoprotein	5	1.407	3.55366		
		ORF1ab polyprotein	83	20.792	3.99192		
		small membrane protein	1	0.24	4.166667		
		spike glycoprotein	11	3.825	2.875817		
CV02	111					100	Canis lupus familiaris (Dog)
		membrane protein	2	0.804	2.487562		
		non-structural protein 3a	3	0.237	12.65823		
		non-structural protein 3b	1	0.216	4.62963		
		non-structural protein 3c	4	0.735	5.442177		
		non-structural protein 7b	4	0.642	6.23053		
		nucleocapsid protein	6	1.149	5.221932		
		ORF 1ab polyprotein	76	20.052	3.790146		
		spike protein	14	4.374	3.200732		
CV08	109					100	Homo sapiens (Human)
		envelope protein	1	0.234	4.273504		
		membrane protein	3	0.681	4.405286		
		nucleocapsid protein	4	1.134	3.527337		
		protein 3	1	0.678	1.474926		
		replicase polyprotein 1ab	82	20.19	4.061417		
		spike protein	14	4.071	3.438958		
CV04	107					100	Felis catus (Cat)
		E protein	1	0.249	4.016064		
		matrix protein	2	0.789	2.534854		
		non-structural protein 3c	3	0.735	4.081633		
		non-structural protein 7a	1	0.306	3.267974		
		non-structural protein 7b	4	0.621	6.441224		
		nucleocapsid protein	6	1.134	5.291005		
		polyprotein ab	71	20.13	3.527074		
		putative 3a protein	3	0.216	13.88889		
		putative 3b protein	2	0.216	9.259259		

CV61	107	spike protein	12	4.359	2.752925	100	Homo sapiens (Human)
		E	2	0.228	8.77193		
		M	1	0.669	1.494768		
		N	4	1.26	3.174603		
		ORF10	2	0.117	17.09402		
		Orf1ab	71	21.29	3.334899		
		ORF3a	4	0.828	4.830918		
		ORF7a	1	0.366	2.73224		
		ORF8	2	0.366	5.464481		
S	15	3.822	3.924647				
CV44	106	hypothetical protein	8	2.196	3.642987	100	Tylonycteris pachypus, Chiroptera (Bat)
		membrane glycoprotein	1	0.66	1.515152		
		nucleocapsid phosphoprotein	3	1.272	2.358491		
		ORF1ab polyprotein	75	21.359	3.5114		
		small membrane protein	3	0.249	12.04819		
		spike glycoprotein	13	4.059	3.202759		
CV05	103	envelope protein	1	0.249	4.016064	100	Sus scrofa (Wild Pig)
		membrane protein	2	0.786	2.544529		
		non-structural protein 3b	4	0.618	6.472492		
		non-structural protein 7	2	0.237	8.438819		
		nucleoprotein	8	1.149	6.962576		
		replicase 1a	43	12.045	3.569946		
		replicase 1b	29	8.043	3.60562		
		spike protein	8	3.669	2.180431		
		ORF1ab polyprotein	72	20.184	3.567182		
spike glycoprotein	12	3.387	3.542958				
CV13	98	hypothetical protein	12	0.69	17.3913	100	thinolophus sinicus (Chinese rufous horseshoe bat)
		ORF1ab polyprotein	72	20.184	3.567182		
		spike glycoprotein	12	3.387	3.542958		
		spike glycoprotein	12	3.387	3.542958		
CV57	97	membrane protein	1	0.654	1.529052	100	Turdus hortulorum, Turdus merula (Thrush Bird)
		nonstructural protein	4	0.276	14.49275		
		ORF1ab polyprotein	77	18.86	4.082715		
		spike glycoprotein	11	3.579	3.073484		
		spike glycoprotein	11	3.579	3.073484		
CV03	96	envelope protein	1	0.249	4.016064	100	Felis catus (Cat)
		M	1	0.792	1.262626		
		N	6	1.131	5.30504		
		polyprotein 1ab	68	20.082	3.386117		
		S	10	4.404	2.270663		
		spike glycoprotein	11	3.579	3.073484		
CV06	96	envelope protein	1	0.249	4.016064	100	Sus scrofa (Wild Pig)
		membrane protein	3	0.789	3.802281		
		non-structural protein 3a	3	0.216	13.88889		
		non-structural protein 3b	2	0.735	2.721088		
		non-structural protein 7	1	0.237	4.219409		
		nucleoprotein	7	1.149	6.092254		
		replicase	61	20.054	3.041787		
		spike protein	14	4.344	3.222836		
		spike glycoprotein	11	3.579	3.073484		
CV33	96	accessory protein 4	1	0.42	2.380952	100	Mus musculus (Rat)
		spike glycoprotein	11	3.579	3.073484		

		envelop protein (E)	1	0.267	3.745318		
		hemagglutinin-esterase glycoprotein (HE)	2	1.32	1.515152		
		membrane protein (M)	1	0.687	1.455604		
		nucleocapsid protein (N)	5	1.368	3.654971		
		Orf1ab	69	21.542	3.203045		
		p30 accessory protein	2	0.798	2.506266		
		spike glycoprotein (S)	9	4.131	2.178649		
CV55	96					100	Lonchura striata (Munia Bird)
		membrane protein	2	0.657	3.04414		
		nonstructural protein	2	0.327	6.116208		
		nucleocapsid phosphoprotein	2	1.059	1.888574		
		ORF1ab polyprotein	73	18.923	3.857739		
		spike glycoprotein	13	3.471	3.745318		
CV53	92					100	Pycnonotus jocosus (Bulbul Bird)
		membrane protein	1	0.702	1.424501		
		nonstructural protein	6	0.288	20.83333		
		nucleocapsid phosphoprotein	1	1.05	0.952381		
		ORF1ab polyprotein	61	18.794	3.245717		
		spike glycoprotein	20	3.498	5.717553		
CV11	91					100	Miniopterus sp. (Bat)
		envelope protein	2	0.225	8.888889		
		hypothetical protein	2	0.747	2.677376		
		nucleocapsid protein	1	1.269	0.788022		
		ORF1ab polyprotein	67	20.691	3.238123		
		spike protein	16	4.128	3.875969		
CV07	89					100	Homo sapiens (Human)
		4a protein	1	0.402	2.487562		
		4b protein	1	0.267	3.745318		
		envelope protein	3	0.234	12.82051		
		membrane protein	3	0.678	4.424779		
		nucleocapsid protein	4	1.17	3.418803		
		replicase polyprotein 1ab	67	20.277	3.304236		
		surface glycoprotein	6	3.522	1.703578		
CV14	86					100	Scotophilus kuhlii (Bat)
		envelope protein	1	0.231	4.329004		
		matrix protein	2	0.684	2.923977		
		nucleocapsid phosphoprotein	2	1.185	1.687764		
		ORF1	59	20.382	2.894711		
		putative ORF3	1	0.675	1.481481		
		spike protein	14	4.115	3.402187		
CV09	82					100	Miniopterus sp. (Bat)
		nucleocapsid protein	1	1.17	0.854701		
		ORF1ab polyprotein	64	20.799	3.077071		
		ORF3 protein	1	0.66	1.515152		
		spike protein	13	4.128	3.149225		
CV58	126					92.31	Bos taurus (Cow)
		hemagglutinin esterase	7	1.26	5.555556		
		nucleocapsid phosphoprotein	2	0.504	3.968254		
		polyprotein 1ab	91	20.201	4.504727		
		spike glycoprotein	22	4.755	4.626709		
CV60	144					90.91	Blicca bjoerkna (Fish)
		putative membrane protein	1	0.684	1.461988		
		putative nucleocapsid protein	4	0.486	8.230453		

		putative spike protein	13	3.663	3.549004		
		replicase polyprotein 1ab	118	20.618	5.723155		
CV48	122					83.33	Delphinapterus leucas (beluga whale)
		matrix glycoprotein	6	0.783	7.662835		
		nucleocapsid protein	4	1.14	3.508772		
		ORF 1ab polyprotein	79	19.991	3.951778		
		ORF 5b	2	0.519	3.853565		
		ORF 5c	1	0.528	1.893939		
		ORF 6	2	0.687	2.911208		
		ORF 7	1	0.486	2.057613		
		ORF 9	4	0.459	8.714597		
		small membrane protein	1	0.288	3.472222		
		spike protein	15	4.419	3.394433		
CV46	112					80	Gallus gallus (Bird)
		3a protein	1	0.174	5.747126		
		3b protein	2	0.195	10.25641		
		5b protein	3	0.249	12.04819		
		membrane protein	2	0.678	2.949853		
		nucleocapsid protein	4	1.23	3.252033		
		ORF1ab polyprotein	74	19.889	3.72065		
		small virion-associated protein	2	0.327	6.116208		
		spike protein	18	3.489	5.159071		
CV12	87					80	Sus scrofa (Wild Pig)
		nucleocapsid protein	7	1.326	5.279035		
		Pol1	69	20.346	3.39133		
		spike protein	9	4.152	2.16763		
CV35	113					75	Pipistrellus abramus, Chiroptera (Bat)
		hypothetical protein	5	1.809	2.763958		
		membrane glycoprotein	1	0.663	1.508296		
		nucleocapsid phosphoprotein	2	1.284	1.557632		
		ORF1ab polyprotein	80	21.548	3.712642		
		small membrane protein	5	0.249	20.08032		
		spike glycoprotein	15	4.059	3.695492		
CV34	101					75	Rattus norvegicus (Rat)
		32 kD non-structural protein	2	0.798	2.506266		
		envelope protein	1	0.267	3.745318		
		hemagglutinin-esterase	1	1.32	0.757576		
		membrane protein	4	0.687	5.822416		
		nucleocapsid protein	4	1.365	2.930403		
		ORF1ab polyprotein	73	21.518	3.392509		
		spike protein	14	4.083	3.428851		
CV47	99					75	Meleagris gallopavo (Bird)
		3a	1	0.174	5.747126		
		4b	2	0.285	7.017544		
		5b	2	0.249	8.032129		
		E	1	0.312	3.205128		
		M	3	0.672	4.464286		
		N	3	1.23	2.439024		
		polyprotein 1ab	68	19.913	3.414855		
		spike	14	3.612	3.875969		
CV38	97					57.14	Chlorocebus aethiops, Homo sapiens
		E2 glycoprotein precursor	20	3.768	5.307856		
		hypothetical protein sars3a	5	0.825	6.060606		

		hypothetical protein sars7a	3	0.369	8.130081		
		nucleocapsid protein (N)	4	1.269	3.152088		
		orf1ab polyprotein (pp1ab)	60	21.221	2.827388		
		protein (E)	2	0.231	8.658009		
CV37	96					50	Homo sapiens (Human)
		E protein	2	0.231	8.658009		
		N protein	4	1.269	3.152088		
		nonstructural polyprotein pp1ab	60	21.221	2.827388		
		protein X1	5	0.825	6.060606		
		protein X4	3	0.369	8.130081		
		S protein	20	3.768	5.307856		