

SARS-CoV S Protein Peptide Array (Catalog No. NR-2669)			
Peptide	Amino acid sequence	Domain pool	Plate
1	MFIFLLFLTLTSGSDLDR	S1 N-Term	1
2	TLTSGSDLDRCTTFDDV	S1 N-Term	1
3	LDRCTTFDDVQAPNYTQH	S1 N-Term	1
4	DVQAPNYTQHTSSMRGVY	S1 N-Term	1
5	QHTSSMRGVYYPDEIFR	S1 N-Term	1
6	GVYYPDEIFRSDTLYL	S1 N-Term	1
7	EIFRSDTLYLTDQLFLPF	S1 N-Term	1
8	YLTQDLFLPFYSNVTGFH	S1 N-Term	1
9	PFYSNVTGFHTINHTF	S1 N-Term	1
10	TGFHTINHTFGNPVIFPK	S1 N-Term	1
11	TFGNPVIKFDGIYFAA	S1 N-Term	1
12	PFKFDGIYFAATEKSNVVR	S1 N-Term	1
13	AATEKSNVVRGWVFGSTM	S1 N-Term	1
14	VRGWVFGSTMNKSQSVI	S1 N-Term	1
15	TMNKSQSVIINNSTNV	S1 N-Term	1
16	VIIINNSTNVIRACNF	S1 N-Term	1
17	TNVIRACNFELCDNPF	S1 N-Term	1
18	NFELCDNPFVAVSKPM	S1 N-Term	1
19	NPFVAVSKPMGTQHTMI	S1 N-Term	1
20	PMGTQHTMIFDNAF	S1 N-Term	1
21	THTMIFDNAFNCTFEYI	S1 N-Term	1
22	NAFNCTFEYISDAFSLDV	S1 N-Term	1
23	YISDAFSLDVSEKSGNFK	S1 N-Term	1
24	DVSEKSGNFKHLREFVFK	S1 N-Term	1
25	FKHLREFVFKNKDGFLYV	S1 N-Term	1
26	FKNKDGFLYVYKGYQPI	S1 N-Term	1
27	LYVYKGYQPIDVVRDL	S1 N-Term	1
28	YQPIDVVRDLPSGFNTLK	S1 N-Term	1
29	DLPSGFNTLKPIFKLPL	S1 N-Term	1
30	TLKPIFKLPLGINITNFR	S1 N-Term	1
31	PLGINITNFRAILTAF	S1 N-Term	1
32	TNFRAILTAFSPAQDIW	S1 N-Term	1
33	TAFSPAQDIWGTSAAYF	S1 N-Term	1
34	IWGTSAAYFVGYLK	S1 N-Term	1
35	AAAYFVGYLKPTTFMLKY	S1 N-Term	1
36	LKPTTFMLKYDENGTI	S1 N-Term	1
37	MLKYDENGITITDAVDCSQ	S1 N-Term	1
38	TITDAVDCSQNPLAELK	S1 N-Term	1
39	CSQNPLAELKCSVKSFEI	S1 N-Term	1
40	LKCSVKSFEIDKGIY	S1 N-Term	1
41	KSFEIDKGIYQTSNFRVY	S1 N-Term	1
42	IYQTSNFRVYVPSGDVRF	RBD	1
43	VVPSGDVRFPNITNL	RBD	1
44	VVRFPNITNLCPFGEVF	RBD	1

45	TNLCPFGEVFNATKFPSV	RBD	1
46	VFNATKFPSVYAWERKKI	RBD	1
47	SVYAWERKKISNCVADY	RBD	1
48	KKISNCVADYSVLVNSTF	RBD	1
49	DYSVLVNSTFFSTFKCY	RBD	1
50	STFFSTFKCYGVSATKL	RBD	1
51	KCYGVSATKLNDLCFSNV	RBD	1
52	KLNDLCFSNVYADSFVVK	RBD	1
53	NVYADSFVVKGDDVRQIA	RBD	1
54	VKGDDVRQIAPGQGVIA	RBD	1
55	IAPGQGVIAADYNYKL	RBD	1
56	GVIADYNYKLPDDFMGCV	RBD	1
57	KLPDDFMGCVLAWNTRNI	RBD	1
58	CVLAWNTRNIDATSTGNY	RBD	1
59	NIDATSTGNYNYKYRYLR	RBD	1
60	NYNYKYRYLRHGKLRPF	RBD	1
61	YLRHGKLRPFERDISNV	RBD	1
62	RPFERDISNVFSPDGK	RBD	1
63	SNVPFSPDGKCTPPAL	RBD	1
64	DGKCTPPALNCYWPL	RBD	1
65	PPALNCYWPLNDYGFY	RBD	1
66	YWPLNDYGFYTTTGIGY	RBD	1
67	GFYTTTGIGYQPYRVVVL	RBD	1
68	GYQPYRVVLSFELLNA	RBD	1
69	VVLSFELLNAPATVCGPK	RBD	1
70	NAPATVCGPKLSTDLIK	RBD	1
71	GPKLSTDLIKQCVNFN	RBD	1
72	IKNQCVMFNFNGLTGTGV	RBD	1
73	NFNGLTGTGVLTPSSKRF	S1 C-Term	1
74	GVLTPSSKRFQPFQFGR	S1 C-Term	1
75	RFQPFQFGRDVSD	S1 C-Term	1
76	QQFGRDVSDFTDSVRDPK	S1 C-Term	1
77	DFTDSVRDPKTSEILDI	S1 C-Term	1
78	DPKTSEILDISPCFSGGV	S1 C-Term	1
79	DISPCFSGGVSVITPGTNA	S1 C-Term	1
80	VSVITPGTNASSEVAVLY	S1 C-Term	1
81	NASSEVAVLYQDVNCTDV	S1 C-Term	1
82	LYQDVNCTDVSTAIHA	S1 C-Term	1
83	CTDVSTAIHADQLTPAWR	S1 C-Term	1
84	HADQLTPAWRIYSTGNNV	S1 C-Term	1
85	WRIYSTGNNVFQTQAGCL	S1 C-Term	1
86	NVFQTQAGCLIGAEHV	S1 C-Term	1
87	AGCLIGAEHVDTSYECDI	S1 C-Term	1
88	HVDTSYECDIPIGAGICA	S1 C-Term	1
89	DIPIGAGICASYHTVSL	S1 C-Term	1
90	CASYHTVSLLRSTSQKSI	S1 C-Term	1
91	LLRSTSQKSIVAYTMSL	S2	1
92	KSIVAYTMSLGADSSIA	S2	1

93	SLGADSSIAYSNNTIAI	S2	1
94	IAYSNNTIAIPTNFSISI	S2	1
95	AIPTNFSISITTEVMPV	S2	1
96	ISITTEVMPVSMAKTSV	S2	1
1	MPVSMAKTSVDCNMYI	S2	2
2	KTSVDCNMYICGDSTECA	S2	2
3	YICGDSTECANLLQY	S2	2
4	TECANLLQYGSFCTQL	S2	2
5	LQYGSFCTQLNRALSGIA	S2	2
6	QLNRALSGIAAEQDRNTR	S2	2
7	IAAEQDRNTREVFAQVK	S2	2
8	NTREVFAQVKQMYKPTPL	S2	2
9	VKQMYKPTPLKYFGGFNF	S2	2
10	TLKYFGGFNFSQILPDPL	S2	2
11	NFSQILPDPLKPTKRSFI	S2	2
12	PLKPTKRSFIEDLLFNKV	S2	2
13	FIEDLLFNKVTLADAGFM	S2	2
14	KVTLADAGFMKQYGECL	S2	2
15	GFMKQYGECLGDINARDL	S2	2
16	CLGDINARDLICAQKF	S2	2
17	ARDLICAQKFNGLTVL	S2	2
18	AQKFNGLTVLPLLTDDM	S2	2
19	VLPLLTDDMIAAYTAAL	S2	2
20	DMIAAYTAALVSGTATA	S2	2
21	AALVSGTATAGWTFGAGA	S2	2
22	TAGWTFGAGAALQIPFAM	S2	2
23	GAALQIPFAMQMAYRF	S2	2
24	PFAMQMAYRFNGIGV	S2	2
25	MAYRFNGIGVTQNVLY	S2	2
26	GIGVTQNVLYENQKQIA	S2	2
27	VLYENQKQIANQFNKAI	S2	2
28	QIANQFNKAISIQIESL	S2	2
29	KAISIQIESLTTTSTAL	S2	2
30	ESLTTTSTALGKLQDVV	S2	2
31	TALGKLQDVVNQNAQAL	S2	2
32	DVVNQNAQALNTLVKQL	S2	2
33	QALNTLVKQLSSNFGAI	S2	2
34	KQLSSNFGAISSVLNDIL	S2	2
35	AISSVLNDILSRDKVEA	S2	2
36	ILSRDKVEAEVQIDRLI	S2	2
37	EAEVQIDRLITGRQLSL	S2	2
38	RLITGRQLSLQTYVTQQL	S2	2
39	SLQTYVTQQLIRAAEIRA	S2	2
40	QLIRAAEIRASANLAATK	S2	2
41	RASANLAATKMSECVL	S2	2
42	AATKMSECVLQSKRVDF	S2	2
43	VLQSKRVDFCGKGYHLM	S2	2
44	DFCGKGYHLMSPQAAPH	S2	2

45	LMSFPQAAPHGVVFLHV	S2	2
46	APHGVVFLHVTVPSQER	S2	2
47	HVTVPSQERNFTTAPAI	S2	2
48	ERNFTTAPAICHEGKAYF	S2	2
49	AICHEGKAYFPREGVVFV	S2	2
50	YFPREGVVFVNGTSWFI	S2	2
51	FVFNGTSWFITQRNFF	S2	2
52	SWFITQRNFFSPQII	S2	2
53	QRNFFSPQIITDNTFV	S2	2
54	QIITDNTFVSGNCDVVI	S2	2
55	FVSGNCDVVIINNTVY	S2	2
56	VIGIINNTVYDPLQPEL	S2	2
57	TVYDPLQPELDSFKEEL	S2	2
58	PELDSFKEELDKYFKNH	S2	2
59	EELDKYFKNHTSPDVL	S2	2
60	KNHTSPDVLGDISGINA	S2	2
61	DLGDISGINASVNIQK	S2	2
62	INASVNIQKEIDRLNEV	S2	2
63	QKEIDRLNEVAKNLNESL	S2	2
64	EVAKNLNESLIDLQELGK	S2	2
65	SLIDLQELGKYEQYIKW	S2	2
66	LGKYEQYIKWPWYVWLGF	S2	2
67	KWPWYVWLGFIAGLIAIV	S2	2
68	GFIAGLIAIVMTILL	S2	2
69	IAIVMTILLCCMTSCCSCS	S2	2
70	CCMTSCCSCCLKGACSCGS	S2	2
71	CLKGACSCGSCCKFDEDD	S2	2
72	GSCCKFDEDDSEPVKGV	S2	2
73	DDSEPVKGVKLHYT	S2	2

SARS-Related Coronavirus 2 Nucleocapsid (N) Protein Peptide Array, Catalog No. NR-52404			
Peptide	Amino acid sequence	Domain pool	Plate
1	MSDNGPQNQRNAPRITF	NC N-Term	3
2	NQRNAPRITFGGPSDST	NC N-Term	3
3	ITFGGPSDSTGSNQNGE	NC N-Term	3
4	DSTGSNQNGERSGARSK	NC N-Term	3
5	NGERSGARSKQRRPQGL	NC N-Term	3
6	RSKQRRPQGLPNNTASW	NC RNA BD	3
7	QGLPNNTASWFTALTQH	NC RNA BD	3
8	ASWFTALTQHGKEDLKF	NC RNA BD	3
9	TQHGKEDLKFPRGQGV	NC RNA BD	3
10	LKFPRGQGVPIINTSSP	NC RNA BD	3
11	GVPINTSSPDDQIGYY	NC RNA BD	3
12	SSPDDQIGYYRRATRRRI	NC RNA BD	3
13	GYRRATRRIRGGDGKM	NC RNA BD	3
14	RRIRGGDGKMKDLSPRW	NC RNA BD	3

15	GKMKDLSRWYFYLLGT	NC RNA BD	3
16	PRWYFYLLGTGPEAGLP	NC RNA BD	3
17	LGTGPEAGLPYGANKDG	NC RNA BD	3
18	GLPYGANKDGIWVATE	NC RNA BD	3
19	KDGIWVATEGALNTPK	NC RNA BD	3
20	ATEGALNTPKDHIHIGTRN	NC RNA BD	3
21	TPKDHIGTRNPANNAI	NC RNA BD	3
22	TRNPANNAIWLQLPQG	NC RNA BD	3
23	AAIVLQLPQGTTLPKGF	NC RNA BD	3
24	PQGTTLPKGFYAEGSRG	NC RNA BD	3
25	KGFYAEGSRGGSQASSR	NC RNA BD	3
26	SRGGSQASSRSSRSRN	NC3	3
27	SSRSSRSRNSSRNSTP	NC3	3
28	SRNSSRNSTPGSSRGTS	NC3	3
29	STPGSSRGTSPTARMAGN	NC3	3
30	GTSPARMAGNGGDAALA	NC3	3
31	AGNGGDAALALLLDRL	NC3	3
32	ALALLLDRLNQLSKM	NC3	3
33	DRLNQLSKMMSGKGGQQ	NC3	3
34	SKMSGKGGQQGQTVTK	NC3	3
35	QQQQGQTVTKSAAEAS	NC3	3
36	VTKKSAAEASKPRQKR	NC3	3
37	EASKKPRQKRTATKAYN	NC dimerization	3
38	KKRTATKAYNVTQAFGR	NC dimerization	3
39	AYNVTQAFGRGPEQTQ	NC dimerization	3
40	FGRRGPEQTQGNFGDQE	NC dimerization	3
41	QTQGNFGDQELIRQGT	NC dimerization	3
42	DQELIRQGTQYKHWPQI	NC dimerization	3
43	GTDYKHWPQIAQFAPSA	NC dimerization	3
44	PQIAQFAPSASAFFGMS	NC dimerization	3
45	PSASAFFGMSRIGMEVT	NC dimerization	3
46	GMSRIGMEVTPSGTWLT	NC dimerization	3
47	EVTSGTWLTYTGAIKL	NC dimerization	3
48	WLTYTGAIKLDDKDPNF	NC dimerization	3
49	IKLDDKDPNFKDQVILL	NC dimerization	3
50	PNFKDQVILLNKHIDAY	NC dimerization	3
51	ILLNKHIDAYKTFPPE	NC dimerization	3
52	DAYKTFPPEPKKDKKK	NC C-Term	3
53	PTEPKKDKKKKADETQA	NC C-Term	3
54	KKKKADETQALPQRQKK	NC C-Term	3
55	TQALPQRQKKQQTVLL	NC C-Term	3
56	QKKQQTVLLPAADLDD	NC C-Term	3
57	TLLPAADLDDFSKQLQQ	NC C-Term	3
58	LDDFSKQLQQSMSSADS	NC C-Term	3
59	LQQSMSSADSTQA	NC C-Term	3

SARS-Related Coronavirus 2 Envelope (E) Protein Peptide Array, Catalog No. NR-52405			
Peptide	Amino acid sequence	Domain pool	Well pool
1	MYSFVSEETGLIVNSV	Env	4
2	ETGTLIVNSVLLFLAFV	Env	4
3	NSVLLFLAFVFLVTL	Env	4
4	AFVFLVTLAILTALR	Env	4
5	VTLAILTALRLCAYCCN	Env	4
6	ALRLCAYCCNIVNSLV	Env	4
7	CCNIVNSLVKPSFYVY	Env	4
8	SLVKPSFYVYSRVKLN	Env	4
9	YVYSRVKLNSSRPDL	Env	4
10	NLNSSRVPDLLV	Env	4

SARS-Related Coronavirus 2 Membrane (M) Protein Peptide Array, Catalog No. NR-52403			
Peptide	Amino acid sequence	Domain pool	Well pool
1	MADSNGTITVEELKLL	Membrane	5
2	ITVEELKLLQWNLVI	Membrane	5
3	KLLEQWNLVIGFLFTW	Membrane	5
4	LVIGFLFTWICLLQFA	Membrane	5
5	LTWICLLQFAYANRNF	Membrane	5
6	QFAYANRNRFLYIKLI	Membrane	5
7	NRFLYIKLIFLWLLWP	Membrane	5
8	KLIFLWLLWPVTLACFV	Membrane	5
9	LWPVTLACFVLAAYVRI	Membrane	5
10	CFVLAAYVRINWITGGI	Membrane	5
11	YRINWITGGIAMIACL	Membrane	5
12	GGIAMIACLVGLMWLS	Membrane	5
13	ACLVGLMWLSYFIASFR	Membrane	5
14	WLSYFIASFRFARTRS	Membrane	5
15	SFRLFARTRSMWSFNPE	Membrane	5
16	TRSMWSFNPETNILLNV	Membrane	5
17	NPETNILLNVPLHGTL	Membrane	5
18	LNVPPLHGTLRPLLES	Membrane	5
19	TILRPLLESELVIGAV	Membrane	5
20	LESELVIGAVILRGHLR	Membrane	5
21	GAVILRGHLRIAGHHLG	Membrane	5
22	HLRIAGHHLGRCDIKDL	Membrane	5
23	HLGRCDIKDLPKEITVA	Membrane	5
24	KDLPKEITVATSRTLSTY	Membrane	5
25	TVATSRTLSTYKLGASQ	Membrane	5
26	LSYKLGASQRVAGDSG	Membrane	5
27	ASQRVAGDSGFAAYSRY	Membrane	5
28	DSGFAAYSRYRIGNYKL	Membrane	5
29	SRYRIGNYKLNTHSSS	Membrane	5
30	YKLNTHSSSSDNIALL	Membrane	5

31	SSSSDNIALLVQ	Membrane	5
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Supplemental Table 1: Amino acid sequence information for the peptide libraries used in screens. Yellow highlights are the multi-mers that contain the identified CD8 T cell epitopes and the green highlights are the multi-mers that contain the identified CD4 T cell epitopes.