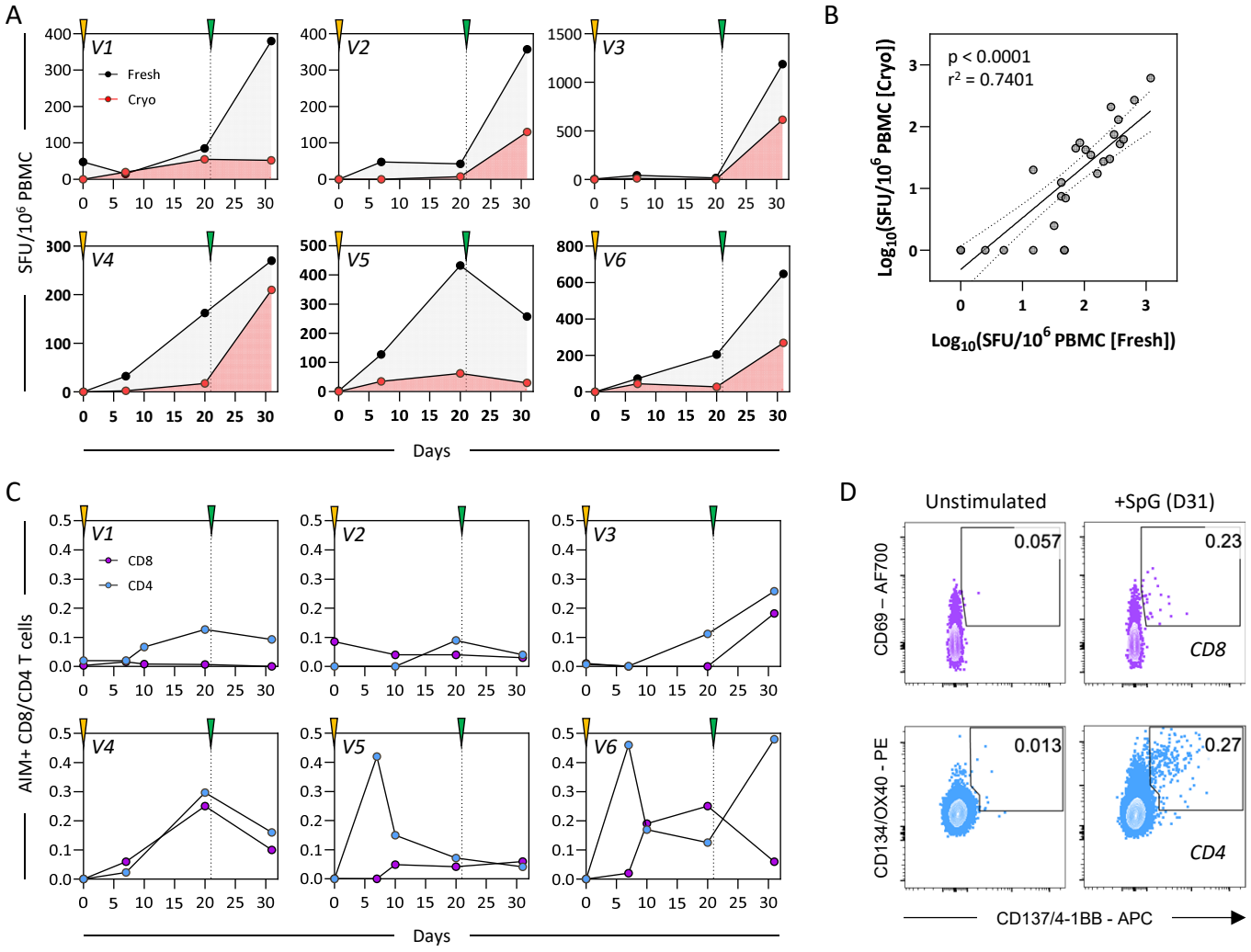
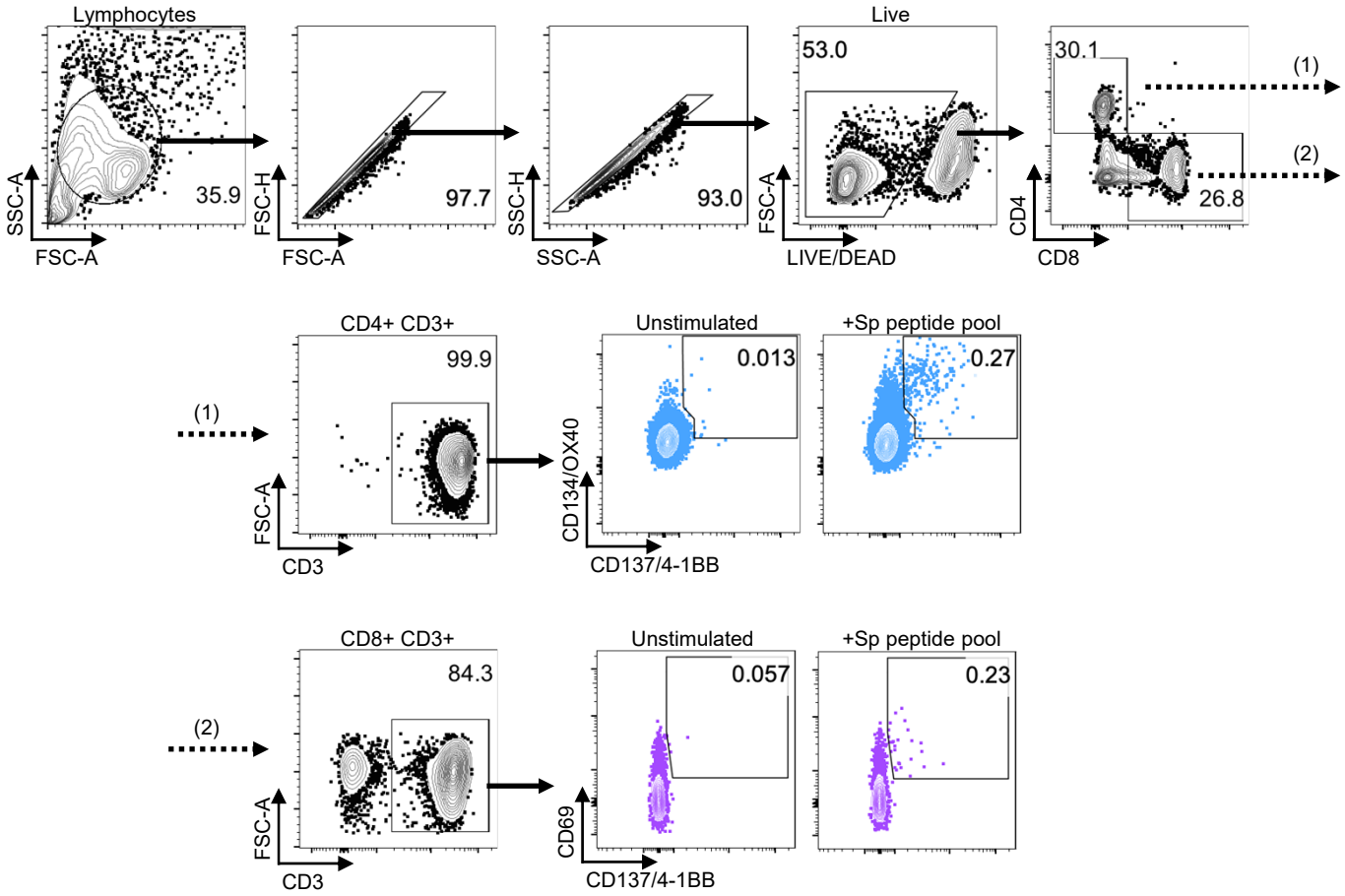


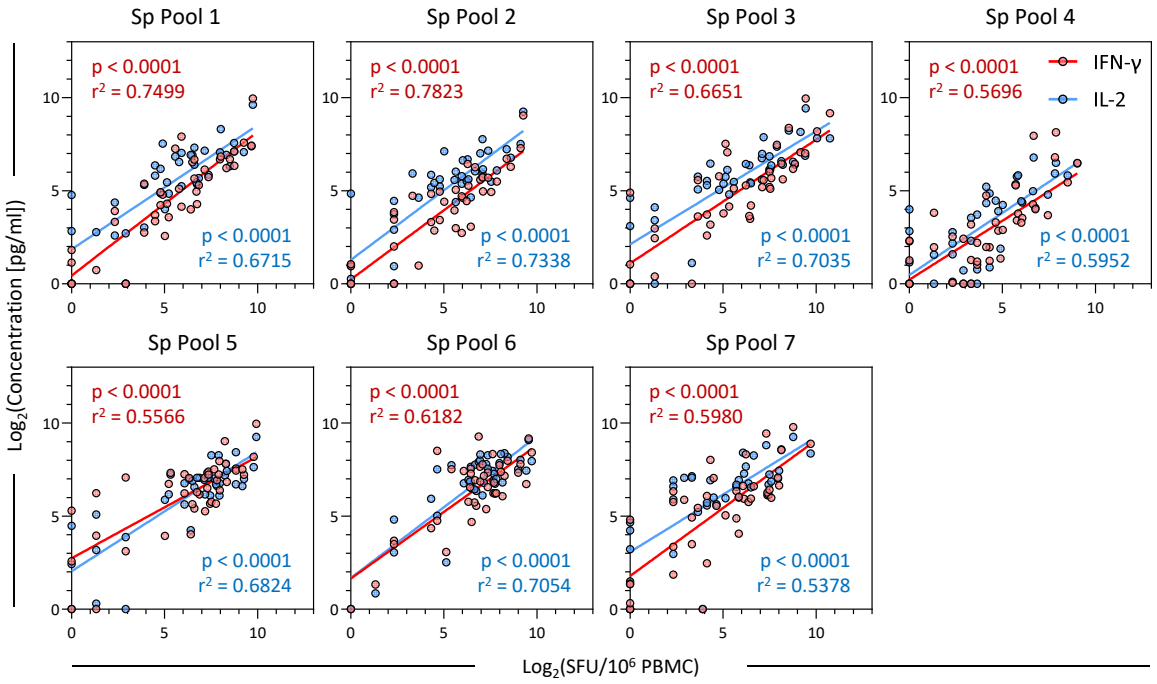
Supplementary Figure 1. Longitudinal response dynamics of ELISPOT assay performed using fresh and cryopreserved PBMCs. A) Standard IFN-γ ELISPOT assays using SpG peptide pool were performed in parallel using freshly isolated (black) or cryopreserved PBMCs (red) obtained from vaccinated individuals at different time points post vaccination (n=6; 24 samples). **B)** Linear regression analysis of IFN-γ SFU/10^6 PBMCs quantified using freshly isolated or cryopreserved PBMCs shows a strong positive correlation. Dotted lines denote the 95% confidence interval. **C)** The frequency of Spike-specific CD4 and CD8 T cells 10 days after the second dose of BNT162b2 were quantified from cryopreserved PBMC samples through the induction of activation markers (CD69, 4-1BB and/or OX40) after SpG peptide pool stimulation (n=6; 27 samples). **D)** Flow cytometry bivariate dot plots showing AIM+ CD8 and CD4 T cells frequencies after SpG peptide pool stimulation in a representative vaccinee 10 days after the boost dose.

Supp. Figure 1



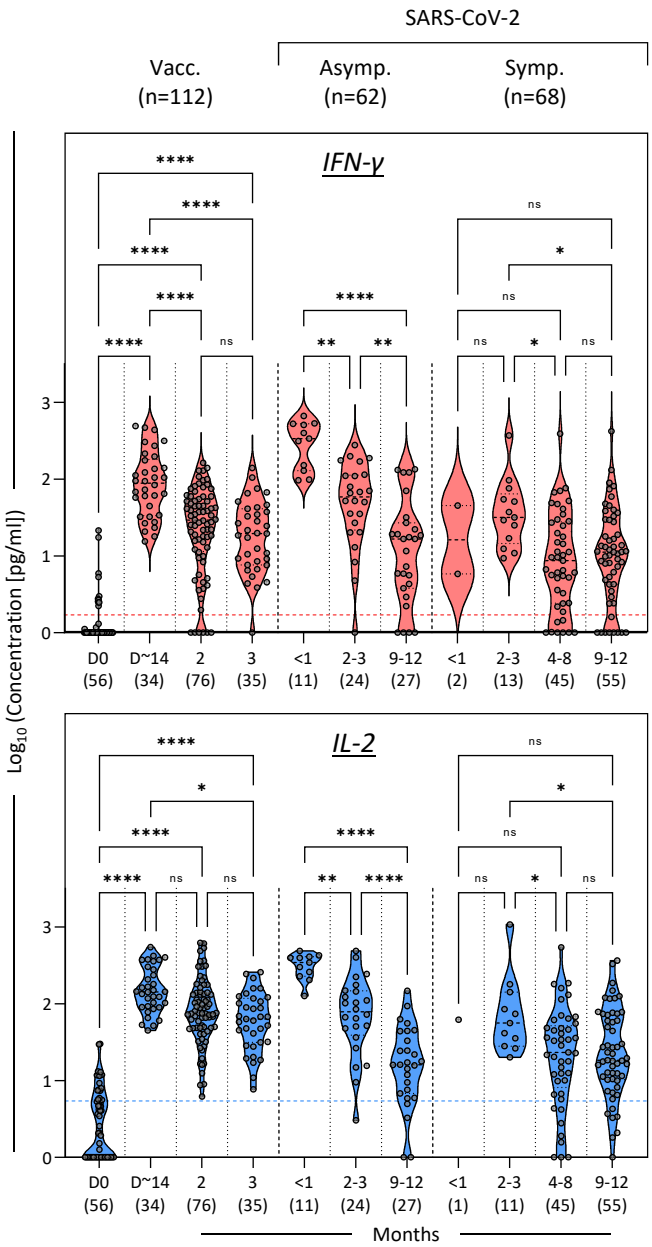
Supplementary Figure 2. Representative gating strategy for AIM+ CD4+ (CD134/OX40+ CD137/4-1BB+; blue) and CD8+ (CD69+ CD137/4-1BB+; purple) T cells in PBMCs with and without peptide stimulation. Frequencies of gated populations relative to parent are affixed into the contour plots.

Supp. Figure 2



Supplementary Figure 3. Linear regression analysis of the concentration of IFN-γ and IL-2 in Spike peptide pool 1-7 stimulated whole blood and the corresponding frequency of total Spike-specific T cells quantified by IFN-γ ELISPOT in vaccinated individuals (V1-V6). Data from multiple time points (Days 0-41) after vaccination were used for this analysis.

Supp. Figure 3



Supplementary Figure 4. SARS-CoV-2 spike specific T cells in the whole blood of vaccinated and infected individuals. A) SARS-CoV-2 Spike-specific T cell response in vaccinated individuals (n=112; 201 samples), asymptomatic (n=62; 62 samples) and symptomatic (n=68; 115 samples) COVID-19 patients were longitudinally quantified by measuring IFN-γ (red) and IL-2 (blue) secretion in whole blood after SpG peptide pool stimulation. Dashed lines denote the detection cut-off for the measured cytokines**.** The number of samples analysed at each time point were indicated in parentheses. Significant differences in each group were analysed by one-way ANOVA and the adjusted p-value (adjusted for multiple comparison) are shown. ns = not significant P>0.05; * = P≤0.05; ** = P≤0.01; *** = P≤0.001; **** = P≤0.0001.

Supp. Figure 4

SpG peptide pool				Sp-1 peptide pool				Sp-2 peptide pool				Sp-3 peptide pool				Sp-4 peptide pool				Sp-5 peptide pool				Sp-6 peptide pool				Sp-7 peptide pool				NP peptide pool			
No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa	No	Peptide	Sequence	aa
1	SP_21	IRGWIFGTTLDSKTQ	101-115	1	SP_1	MFVFLVLLPLVSSQC	1-15	1	SP_35	VSQPFLMDLEGKQGN	171-185	1	SP_68	CPFGEVFNATRFASV	336-350	1	SP_101	NGVGYQPYRVVVLSF	501-515	1	SP_140	TMSLGAENSVAYSNN	696-710	1	SP_178	WTFGAGAALQIPFAM	886-900	1	SP_216	TTAPAICHDGKAHFP	1076-1090	1	NP_42	SRAPMAGNGGDAALA	206-220
2	SP_22	FGTTLDSKTQSLLIV	106-120	2	SP_2	VLLPLVSSQCVNLTT	6-20	2	SP_36	LMDLEGKQGNFKNLR	176-190	2	SP_69	VFNATRFASVYAWNR	341-355	2	SP_102	QPYRVVVLSFELLHA	506-520	2	SP_141	AENSVAYSNNSIAIP	701-715	2	SP_179	GAALQIPFAMQMAYR	891-905	2	SP_217	ICHDGKAHFPRECVF	1081-1095	2	NP_43	ACNGCDAAALALLLD	211-225
3	SP_34	CTFEYVSQPFLMDLE	166-180	3	SP_3	VSSQCVNLTTRTQLP	11-25	3	SP_37	GKQGNFKNLREFVFK	181-195	3	SP_70	RFASVYAWNRKRISN	346-360	3	SP_103	VVLSFELLHAPATVC	511-525	3	SP_142	AYSNNSIAIPTNFTI	706-720	3	SP_180	IPFAMQMAYRFNGIG	896-910	3	SP_218	KAHFPRECVFVSNGT	1086-1100	3	NP_44	DAALALLLLDRLNQL	216-230
4	SP_35	VSQPFLMDLEGKQGN	171-185	4	SP_4	VNLTTRTQLPPAYTN	16-30	4	SP_38	FKNLREFVFKNIDGY	186-200	4	SP_71	YAWNRKRISNCVADY	351-365	4	SP_104	ELLHAPATVCGPKKS	516-530	4	SP_143	SIAIPTNFTISVTTE	711-725	4	SP_181	QMAYRFNGIGVTQNV	901-915	4	SP_219	REGVFVSNGTHWFVT	1091-1105	4	NP_45	LLLLDRLNQLESKMS	221-235
5	SP_48	TRFQTLLALHRSYLT	236-250	5	SP_5	RTQLPPAYTNSFTRG	21-35	5	SP_39	EFVFKNIDGYFKIYS	191-205	5	SP_72	KRISNCVADYSVLYN	356-370	5	SP_105	PATVCGPKKSTNLVK	521-535	5	SP_144	TNFTISVTTEILPVS	716-730	5	SP_182	FNGIGVTQNVLYENQ	906-920	5	SP_220	VSNGTHWFVTQRNFY	1096-1110	5	NP_46	RLNQLESKMSGKCQQ	226-240
6	SP_49	LLALHRSYLTPGDSS	241-255	6	SP_6	PAYTNSFTRGVYYPD	26-40	6	SP_40	NIDGYFKIYSKHTPI	196-210	6	SP_73	CVADYSVLYNSASFS	361-375	6	SP_106	GPKKSTNLVKNKCVN	526-540	6	SP_145	SVTTEILPVSMTKTS	721-735	6	SP_183	VTQNVLYENQKLIAN	911-925	6	SP_221	HWFVTQRNFYEPQII	1101-1115	6	NP_47	ESKMSGKGQQQQGQT	231-245
7	SP_50	RSYLTPGDSSSGWTA	246-260	7	SP_7	SFTRGVYYPDKVFRS	31-45	7	SP_41	FKIYSKHTPINLVRD	201-215	7	SP_74	SVLYNSASFSTFKCY	366-380	7	SP_107	TNLVKNKCVNFNFNG	531-545	7	SP_146	ILPVSMTKTSVDCTM	726-740	7	SP_184	LYENQKLIANQFNSA	916-930	7	SP_222	QRNFYEPQIITTDNT	1106-1120	7	NP_48	GKGQQQQGQTVTKKS	236-250
8	SP_59	CALDPLSETKCTLKS	291-305	8	SP_8	VYYPDKVFRSSVLHS	36-50	8	SP_42	KHTPINLVRDLPQGF	206-220	8	SP_75	SASFSTFKCYGVSPT	371-385	8	SP_108	NKCVNFNFNGLTGTG	536-550	8	SP_147	MTKTSVDCTMYICGD	731-745	8	SP_185	KLIANQFNSAIGKIQ	921-935	8	SP_223	EPQIITTDNTFVSGN	1111-1125	8	NP_49	QQGQTVTKKSAAEAS	241-255
9	SP_60	LSETKCTLKSFTVEK	296-310	9	SP_9	KVFRSSVLHSTQDLF	41-55	9	SP_43	NLVRDLPQGFSALEP	211-225	9	SP_76	TFKCYGVSPTKLNDL	376-390	9	SP_109	FNFNGLTGTGVLTES	541-555	9	SP_148	VDCTMYICGDSTECS	736-750	9	SP_186	QFNSAIGKIQDSLSS	926-940	9	SP_224	TTDNTFVSGNCDVVI	1116-1130	9	NP_50	VTKKSAAEASKKPRQ	246-260
10	SP_61	CTLKSFTVEKGIYQT	301-315	10	SP_10	SVLHSTQDLFLPFFS	46-60	10	SP_44	LPQGFSALEPLVDLP	216-230	10	SP_77	GVSPTKLNDLCFTNV	381-395	10	SP_110	LTGTGVLTESNKKFL	546-560	10	SP_149	YICGDSTECSNLLLQ	741-755	10	SP_187	IGKIQDSLSSTASAL	931-945	10	SP_225	FVSGNCDVVIGIVNN	1121-1135	10	NP_51	AAEASKKPRQKRTAT	251-265
11	SP_62	FTVEKGIYQTSNFRV	306-320	11	SP_11	TQDLFLPFFSNVTWF	51-65	11	SP_45	SALEPLVDLPIGINI	221-235	11	SP_78	KLNDLCFTNVYADSF	386-400	11	SP_111	VLTESNKKFLPFQQF	551-565	11	SP_150	STECSNLLLQYGSFC	746-760	11	SP_188	DSLSSTASALGKLQD	936-950	11	SP_226	CDVVIGIVNNTVYDP	1126-1140	11	NP_52	KKPRQKRTATKAYNV	256-270
12	SP_63	GIYQTSNFRVQPTES	311-325	12	SP_12	LPFFSNVTWFHAIHV	56-70	12	SP_46	LVDLPIGININTRFQT	226-240	12	SP_79	CFTNVYADSFVIRGD	391-405	12	SP_112	NKKFLPFQQFGRDIA	556-570	12	SP_151	NLLLQYGSFCTQLNR	751-765	12	SP_189	TASALGKLQDVVNQN	941-955	12	SP_227	GIVNNTVYDPLQPEL	1131-1145	12	NP_53	KRTATKAYNVTQAFG	261-275
13	SP_75	SASFSTFKCYGVSPT	371-385	13	SP_13	NVTWFHAIHVSGTNG	61-75	13	SP_47	IGININTRFQTLLALH	231-245	13	SP_80	VADSFVIRGDEVRQI	396-410	13	SP_113	PFQQFGRDIADTTDA	561-575	13	SP_152	YGSFCTQLNRALTGI	756-770	13	SP_190	GKLQDVVNQNAQALN	946-960	13	SP_228	TVYDPLQPELDSFKE	1136-1150	13	NP_54	KAYNVTQAFGRRGPE	266-280
14	SP_76	TFKCYGVSPTKLNDL	376-390	14	SP_14	HAIHVSGTNGTKRFD	66-80	14	SP_48	TRFQTLLALHRSYLT	236-250	14	SP_81	VIRGDEVRQIAPGQT	401-415	14	SP_114	GRDIADTTDAVRDPQ	566-580	14	SP_153	TQLNRALTGIAVEQD	761-775	14	SP_191	VVNQNAQALNTLVKQ	951-965	14	SP_229	LQPELDSFKEELDKY	1141-1155	14	NP_55	TQAFGRRGPEQTQGN	271-285
15	SP_85	YNYKLPDDFTGCVIA	421-435	15	SP_15	SGTNGTKRFDNPVLP	71-85	15	SP_49	LLALHRSYLTPGDSS	241-255	15	SP_82	EVRQIAPGQTGKIAD	406-420	15	SP_115	DTTDAVRDPQTLEIL	571-585	15	SP_154	ALTGIAVEQDKNTQE	766-780	15	SP_192	AQALNTLVKQLSSNF	956-970	15	SP_230	DSFKEELDKYFKNHT	1146-1160	15	NP_56	RRGPEQTQGNFGDQE	276-290
16	SP_88	WNSNNLDSKVGGNYN	436-450	16	SP_16	TKRFDNPVLPFNDGV	76-90	16	SP_50	RSYLTPGDSSSGWTA	246-260	16	SP_83	APGQTGKIADYNYKL	411-425	16	SP_116	VRDPQTLEILDITPC	576-590	16	SP_155	AVEQDKNTQEVFAQV	771-785	16	SP_193	TLVKQLSSNFGAISS	961-975	16	SP_231	ELDKYFKNHTSPDVD	1151-1165	16	NP_57	QTQGNFGDQELIRQG	281-295
17	SP_89	LDSKVGGNYNYLYRL	441-455	17	SP_17	NPVLPFNDGVYFAST	81-95	17	SP_51	PGDSSSGWTAGAAAY	251-265	17	SP_84	GKIADYNYKLPDDFT	416-430	17	SP_117	TLEILDITPCSFGGV	581-595	17	SP_156	KNTQEVFAQVKQIYK	776-790	17	SP_194	LSSNFGAISSVLNDI	966-980	17	SP_232	FKNHTSPDVDLCDIS	1156-1170	17	NP_58	FCDQELIRQGTDYKH	286-300
18	SP_90	GGNYNYLYRLFRKSN	446-460	18	SP_18	FNDGVYFASTEKSNI	86-100	18	SP_52	SGWTAGAAAYYVGYL	256-270	18	SP_85	YNYKLPDDFTGCVIA	421-435	18	SP_118	DITPCSFGGVSVITP	586-600	18	SP_157	VFAQVKQIYKTPPIK	781-795	18	SP_195	GAISSVLNDILSRLD	971-985	18	SP_233	SPDVDLCDISGINAS	1161-1175	18	NP_59	LIRQGTDYKHWPQIA	291-305
19	SP_91	YLYRLFRKSNLKPFE	451-465	19	SP_19	YFASTEKSNIIRGWI	91-105	19	SP_53	GAAAYYVGYLQPRTF	261-275	19	SP_86	PDDFTGCVIAWNSNN	426-440	19	SP_119	SFGGVSVITPGTNTS	591-605	19	SP_158	KQIYKTPPIKDFGGF	786-800	19	SP_196	VLNDILSRLDKVEAE	976-990	19	SP_234	LGDISGINASVVNIQ	1166-1180	19	NP_60	TDYKHWPQIAQFAPS	296-310
20	SP_92	FRKSNLKPFERDIST	456-470	20	SP_20	EKSNIIRGWIFGTTL	96-110	20	SP_54	YVGYLQPRTFLLKYN	266-280	20	SP_87	GCVIAWNSNNLDSKV	431-445	20	SP_120	SVITPGTNTSNQVAV	596-610	20	SP_159	TPPIKDFGGFNFSQI	791-805	20	SP_197	LSRLDKVEAEVQIDR	981-995	20	SP_235	GINASVVNIQKEIDR	1171-1185	20	NP_61	WPQIAQFAPSASAFF	301-315
21	SP_93	LKPFERDISTEIYQA	461-475	21	SP_21	IRGWIFGTTLDSKTQ	101-115	21	SP_55	QPRTFLLKYNENGTI	271-285	21	SP_88	WNSNNLDSKVGGNYN	436-450	21	SP_121	GTNTSNQVAVLYQDV	601-615	21	SP_160	DFGGFNFSQILPDPS	796-810	21	SP_198	KVEAEVQIDRLITGR	986-1000	21	SP_236	VVNIQKEIDRLNEVA	1176-1190	21	NP_62	QFAPSASAFFGMSRI	306-320
22	SP_106	GPKKSTNLVKNKCVN	526-540	22	SP_22	FGTTLDSKTQSLLIV	106-120	22	SP_56	LLKYNENGTITDAVD	276-290	22	SP_89	LDSKVGGNYNYLYRL	441-455	22	SP_122	NQVAVLYQDVNCTEV	606-620	22	SP_161	NFSQILPDPSKPSKR	801-815	22	SP_199	VQIDRLITGRLQSLQ	991-1005	22	SP_237	KEIDRLNEVAKNLNE	1181-1195	22	NP_63	ASAFFGMSRIGMEVT	311-325
23	SP_107	TNLVKNKCVNFNFNG	531-545	23	SP_23	DSKTQSLLIVNNATN	111-125	23	SP_57	ENGTITDAVDCALDP	281-295	23	SP_90	GGNYNYLYRLFRKSN	446-460	23	SP_123	LYQDVNCTEVPVAIH	611-625	23	SP_162	LPDPSKPSKRSFIED	806-820	23	SP_200	LITGRLQSLQTYVTQ	996-1010	23	SP_238	LNEVAKNLNESLIDL	1186-1200	23	NP_64	GMSRIGMEVTPSGTW	316-330
24	SP_109	FNFNGLTGTGVLTES	541-555	24	SP_24	SLLIVNNATNVVIKV	116-130	24	SP_58	TDAVDCALDPLSETK	286-300	24	SP_91	YLYRLFRKSNLKPFE	451-465	24	SP_124	NCTEVPVAIHADQLT	616-630	24	SP_163	KPSKRSFIEDLLFNK	811-825	24	SP_201	LQSLQTYVTQQLIRA	1001-1015	24	SP_239	KNLNESLIDLQELGK	1191-1205	24	NP_65	GMEVTPSGTWLTYTG	321-335
25	SP_110	LTGTGVLTESNKKFL	546-560	25	SP_25	NNATNVVIKVCEFQF	121-135	25	SP_59	CALDPLSETKCTLKS	291-305	25	SP_92	FRKSNLKPFERDIST	456-470	25	SP_125	PVAIHADQLTPTWRV	621-635	25	SP_164	SFIEDLLFNKVTLAD	816-830	25	SP_202	TYVTQQLIRAAEIRA	1006-1020	25	SP_240	SLIDLQELGKYEQYI	1196-1210	25	NP_66	PSGTWLTYTGAIKLD	326-340
26	SP_130	RAGCLIGAEHVNNSY	646-660	26	SP_26	VVIKVCEFQFCNDPF	126-140	26	SP_60	LSETKCTLKSFTVEK	296-310	26	SP_93	LKPFERDISTEIYQA	461-475	26	SP_126	ADQLTPTWRVSTGS	626-640	26	SP_165	LLFNKVTLADAGFIK	821-835	26	SP_203	QLIRAAEIRASANLA	1011-1025	26	SP_241	QELGKYEQYIKWPWY	1201-1215	26	NP_67	LTYTGAIKLDDKDPN	331-345
27	SP_131	IGAEHVNNSYECDIP	651-665	27	SP_27	CEFQFCNDPFLGVYY	131-145	27	SP_61	CTLKSFTVEKGIYQT	301-315	27	SP_94	RDISTEIYQAGSTPC	466-480	27	SP_127	PTWRVSTGSNVFQT	631-645	27	SP_166	VTLADAGFIKQYGDC	826-840	27	SP_204	AEIRASANLAATKMS	1016-1030	27	SP_242	YEQYIKWPWYIWLGF	1206-1220	27	NP_68	AIKLDDKDPNFKDQV	336-350
28	SP_138	SVASQSIIAYTMSLQ	686-700	28	SP_28	CNDPFLGVYYHKNNK	136-150	28	SP_62	FTVEKGIYQTSNFRV	306-320	28	SP_95	EIYQAGSTPCNGVEG	471-485	28	SP_128	YSTGSNVFQTRAGCL	636-650	28	SP_167	AGFIKQYGDCLGDIA	831-845	28	SP_205	SANLAATKMSECVLC	1021-1035	28	SP_243	KWPWYIWLGFIACLI	1211-1225	28	NP_69	DKDPNFKDQVILLNK	341-355
29	SP_139	SIIAYTMSLQAENSV	691-705	29	SP_29	LGVYYHKNNKSWMES	141-155	29	SP_63	GIYQTSNFRVQPTES	311-325	29	SP_96	GSTPCNGVEGFNCYF	476-490	29	SP_129	NVFQTRAGCLIGAEH	641-655	29	SP_168	QYGDCLGDIAARDLI	836-850	29	SP_206	ATKMSECVLGQSKRV	1026-1040	29	SP_244	IWLGFIAGLIAIVMV	1216-1230	29	NP_70	FKDQVILLNKHIDAY	346-360
30	SP_140	TMSLGAENSVAYSNN	696-710	30	SP_30	HKNNKSWMESEFRVY	146-160	30	SP_64	SNFRVQPTESIVRFP	316-330	30	SP_97	NGVEGFNCYFPLQSY	481-495	30	SP_130	RAGCLIGAEHVNNSY	646-660	30	SP_169	LGDIAARDLICAQKF	841-855	30	SP_207	ECVLGQSKRVDFCGK	1031-1045	30	SP_245	IAGLIAIVMVTIMLC	1221-1235	30	NP_71	ILLNKHIDAYKTFPP	351-365
31	SP_150	STECSNLLLQYGSFC	746-760	31	SP_31	SWMESEFRVYSSANN	151-165	31	SP_65	QPTESIVRFPNITNL	321-335	31	SP_98	FNCYFPLQSYGFQPT	486-500	31	SP_131	IGAEHVNNSYECDIP	651-665	31	SP_170	ARDLICAQKFNGLTV	846-860	31	SP_208	QSKRVDFCGKGYHLM	1036-1050	31	SP_246	AIVMVTIMLCCMTSC	1226-1240	31	NP_72	HIDAYKTFPPTEPKK	356-370
32	SP_151	NLLLQYGSFCTQLNR	751-765	32	SP_32	EFRVYSSANNCTFEY	156-170	32	SP_66	IVRFPNITNLCPFGE	326-340	32	SP_99	PLQSYGFQPTNGVGY	491-505	32	SP_132	VNNSYECDIPIGAGI	656-670	32	SP_171	CAQKFNGLTVLPPLL	851-865	32	SP_209	DFCGKGYHLMSFPQS	1041-1055	32	SP_247	TIMLCCMTSCCSCLK	1231-1245	32	NP_73	KTFPPTEPKKDKKKK	361-375
33	SP_156	KNTQEVFAQVKQIYK	776-790	33	SP_33	SSANNCTFEYVSQPF	161-175	33	SP_67	NITNLCPFGEVFNAT	331-345	33	SP_100	GFQPTNGVGYQPYRV	496-510	33	SP_133	ECDIPIGAGICASYQ	661-675	33	SP_172	NGLTVLPPLLTDEMI	856-870	33	SP_210	GYHLMSFPQSAPHGV	1046-1060	33	SP_248	CMTSCCSCLKGCCSC	1236-1250	33	NP_74	TEPKKDKKKKADETQ	366-380
34	SP_157	VFAQVKQIYKTPPIK	781-795	34	SP_34	CTFEYVSQPFLMDLE	166-180									34	SP_134	IGAGICASYQTQTNS	666-680	34	SP_173	LPPLLTDEMIAQYTS	861-875	34	SP_211	SFPQSAPHGVVFLHV	1051-1065	34	SP_249	CSCLKGCCSCGSCCK	1241-1255	34	NP_75	DKKKKADETQALPQR	371-385
35	SP_158	KQIYKTPPIKDFGGF	786-800													35	SP_135	CASYQTQTNSPRRAR	671-685	35	SP_174	TDEMIAQYTSALLAG	866-880	35	SP_212	APHGVVFLHVTYVPA	1056-1070	35	SP_250	GCCSCGSCCKFDEDD	1246-1260	35	NP_76	ADETQALPQRQKKQQ	376-390
36	SP_159	TPPIKDFGGFNFSQI	791-805													36	SP_136	TQTNSPRRARSVASQ	676-690	36	SP_175	AQYTSALLAGTITSG	871-885	36	SP_213	VFLHVTYVPAQEKNF	1061-1075	36	SP_251	GSCCKFDEDDSEPVL	1251-1265	36	NP_77	ALPQRQKKQQTVTLL	381-395
37	SP_161	NFSQILPDPSKPSKR	801-815													37	SP_137	PRRARSVASQSIIAY	681-695	37	SP_176	ALLAGTITSGWTFGA	876-890	37	SP_214	TYVPAQEKNFTTAPA	1066-1080	37	SP_252	FDEDDSEPVLKGVKL	1256-1270	37	NP_78	QKKQQTVTLLPAADL	386-400
38	SP_167	AGFIKQYGDCLGDIA	831-845													38	SP_138	SVASQSIIAYTMSLG	686-700	38	SP_177	TITSGWTFGAGAALQ	881-895	38	SP_215	QEKNFTTAPAICHDG	1071-1085	38	SP_253	SEPVLKGVKLHYT	1261-1273	38	NP_79	TVTLLPAADLDDFSK	391-405
39	SP_168	QYGDCLGDIAARDLI	836-850													39	SP_139	SIIAYTMSLGAENSV	691-705																	39	NP_80	PAADLDDFSKQLQQS	396-410
40	SP_179	GAALQIPFAMQMAYR	891-905																													40	NP_81	DDFSKQLQQSMSSAD	401-415
41	SP_181	QMAYRFNGIGVTQNV	901-915																													41	NP_82	QLQQSMSSADSTQA	406-419
42	SP_182	FNGIGVTQNVLYENQ	906-920																																
43	SP_188	DSLSSTASALGKLQD	936-950																																
44	SP_189	TASALGKLQDVVNQN	941-955																																
45	SP_192	AQALNTLVKQLSSNF	956-970																																
46	SP_196	VLNDILSRLDKVEAE	976-990																																
47	SP_200	LITGRLQSLQTYVTQ	996-1010																																
48	SP_203	QLIRAAEIRASANLA	1011-1025																																
49	SP_204	AEIRASANLAATKMS	1016-1030																																
50	SP_212	APHGVVFLHVTYVPA	1056-1070																																
51	SP_221	HWFVTQRNFYEPQII	1101-1115																																
52	SP_237	KEIDRLNEVAKNLNE	1181-1195																																
53	SP_238	LNEVAKNLNESLIDL	1186-1200																																
54	SP_239	KNLNESLIDLQELGK	1191-1205																																
55	SP_244	IWLGFIAGLIAIVMV	1216-1230																																

Supplementary Table 1. Details of the peptides found in the SpG pool, and the overlapping peptide pools covering the entire SARS-CoV-2 Spike protein and the C-terminal half of the nucleoprotein.