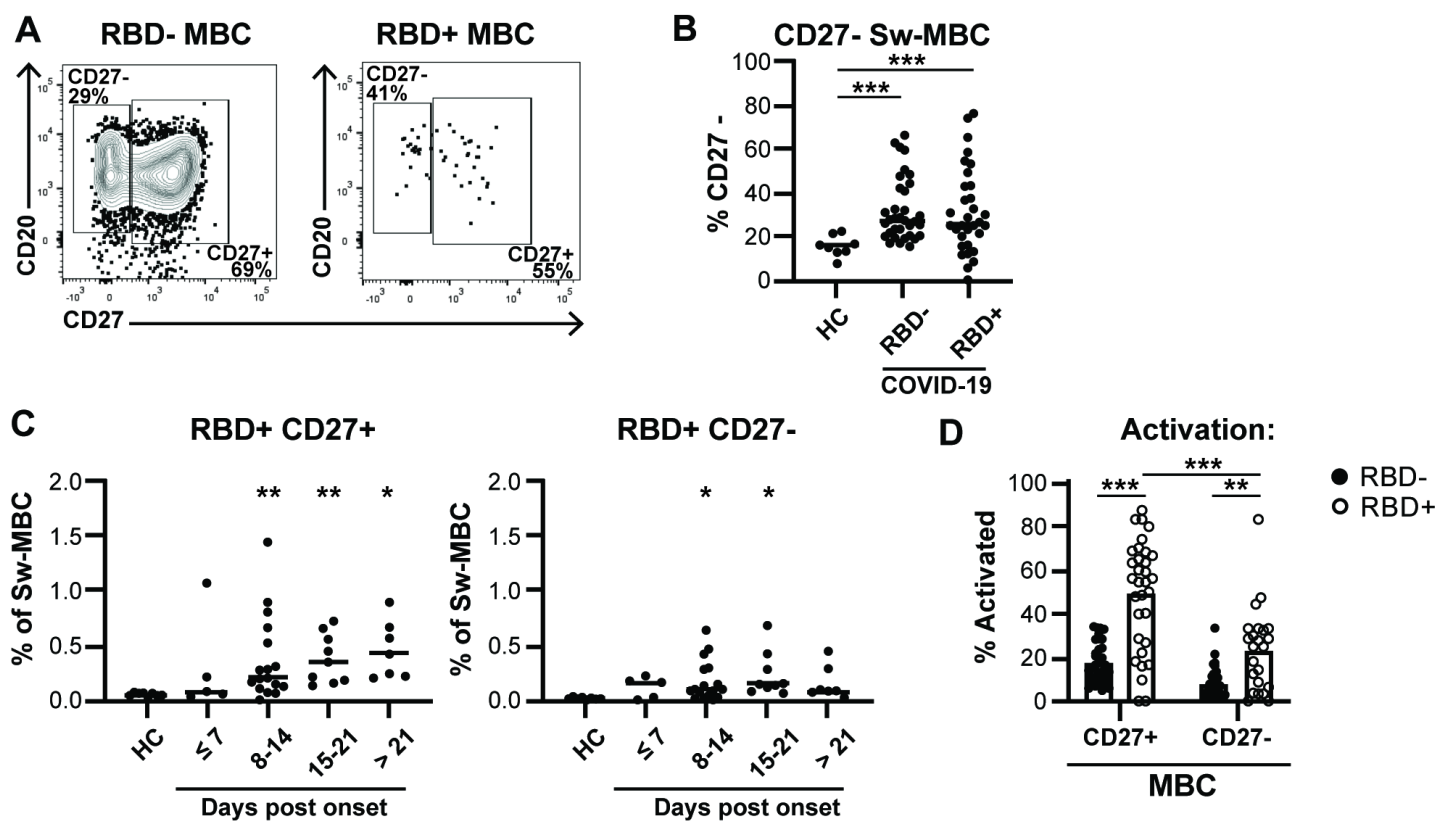
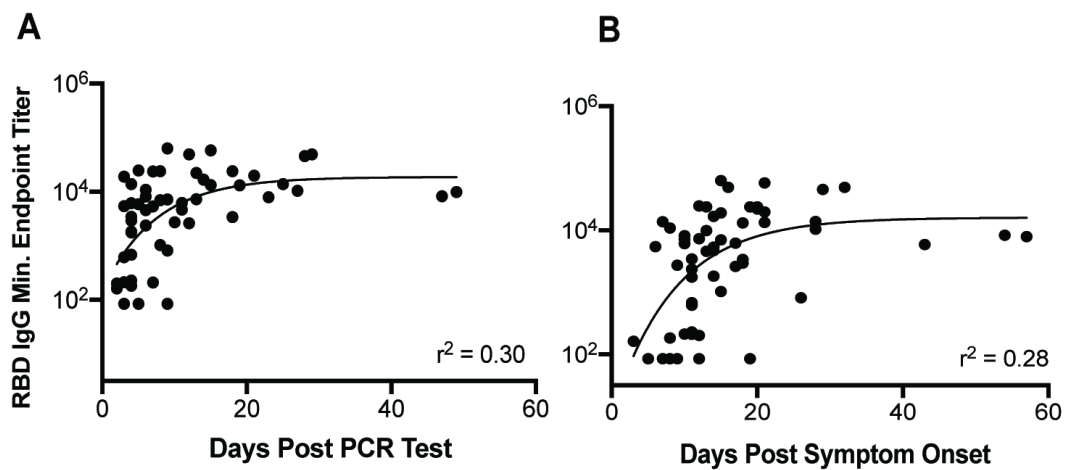


Supplemental Figure 1. CD4+ and CD8+ T cells decreased in COVID-19 patients. A) CD3+ T cells gated by expression of CD4 and CD8 in a healthy control (left) vs. a COVID-19 patient 14 DpSO. B) Percentage of CD4+ (left) or CD8+ (right) cells are shown for healthy controls (n=8) or hospitalized COVID-19 patients (n=47) over time, measured as days post symptom onset. Six patients contributed more than one timepoint. Significance is calculated by Brown-Forsythe ANOVA test or Holm-Sidak multiple T test. *p<0.05, **p<0.01



Supplemental Figure 2. RBD-specific MBCs are found in both the CD27+ and CD27- subsets. A) RBD-binding (right) and non-binding (left) MBCs are gated by expression of CD27. B) The percent of CD27-negative healthy control (n=8), non-RBD-specific (n=33) and RBD-specific (n=30) MBCs. C) RBD-specific CD27+ (left) or CD27- (right) MBCs are shown as the percent of total switched-MBC for healthy controls (n=8) and COVID-19 patients (n=34) over time. D) Activation of RBD-specific and non-specific MBCs in COVID-19 patients, divided by CD27 expression. Significance is calculated by Brown-Forsythe ANOVA test. *p<0.05, **p<0.01, ***p<0.001



Supplemental Figure 3. RBD-specific IgG titers correlate with time from infection. Days post infection as measured by either (A) positive PCR test or (B) self-reported days post-symptom onset plotted against circulating RBD-specific IgG. R2 values are calculated from an exponential plateau best-fit model in Prism.

Supplementary Table 1. Clinical & Serological Data Summary

PTID	Sex	Age	Disease Severity	Days From Positive PCR Test	Days From Symptom Onset	Total Days in Hospital	Fatal	RBD			Full Spike			Nucleoprotein			FRNT50
								IgM	IgG	IgA	IgM	IgG	IgA	IgM	IgG	IgA	
1 ^a	M	73	Severe	15	21	44	N	171	13339	10211	281	8144	5422	575	48913	8208	1152
2 ^a	M	60	Severe	6	10	34	N	2590	8192	85	4309	7899	85	225	26461	85	1547
				12	16			6874	49384	85	38115	87297	85	1132	121091	106	n.d.
3 ^a	F	60	Severe	8	15	11	Y	132	6985	639	227	11173	527	146	16734	413	163
				6	13			169	4574	2495	1111	4728	4360	85	951	2417	663
4 ^a	M	48	Severe	47	54	48	N	85	8295	696	85	3690	430	85	654	352	n.d.
				8	20			1394	23884	3288	6009	23141	3844	545	2372	174309	1214
5 ^a	F	56	Severe	5	12	20	N	85	85	194	372	21211	261	434	49733	1356	72
				8	15			147	1032	1112	325	21713	569	783	36023	6666	n.d.
6 ^a	M	73	Severe	4	11	41	N	85	229	103	522	203	2268	85	21505	356	95
				7	14			232	5379	957	767	4308	5330	85	114266	715	n.d.
7 ^a	F	47	Moderate	3	10	4	N	85	212	134	230	481	287	85	586	112	317
8 ^a	M	76	Severe	3	15	6	N	493	19108	2958	957	17623	2138	85	3688	7867	1378
9 ^a	F	46	Moderate	5	12	5	N	230	24830	9274	868	12756	6036	85	3647	5330	729
10 ^a	F	61	Severe	14	14	36	N	102	16815	438	238	12779	1354	85	7920	20096	401
				21	21			85	19784	516	85	8962	364	85	4447	7188	n.d.
11 ^a	M	46	Severe	13	20	5	N	85	22162	2642	252	337093	4357	287	120111	597	1341
12 ^a	M	69	Severe	19	18	20	N	415	13127	458	860	18168	858	85	157384	585	2205
13 ^a	M	55	Severe	4	8	12	N	162	183	399	188	196	398	85	85	85	113
				25	28			151	13830	484	375	18608	3023	170	5689	9308	754
14 ^a	F	54	Severe	2	3	3	N	134	163	85	80	1105	103	85	272	125	139
				27	28			194	10442	800	549	7479	291	85	5012	154	n.d.
15 ^a	F	24	Moderate	3	6	2	N	1129	5437	2288	1712	737	1971	115	215	734	1020
16 ^a	M	62	Severe	23	57	35	N	85	7942	499	280	6954	464	85	16583	534	328
				18	19			292	23860	1539	1361	19899	2935	85	25239	3451	1080
17 ^a	F	92	Severe	28	29	33	N	221	45741	1448	325	26000	1379	104	17622	574	n.d.
18 ^a	F	58	Severe	15	21	27	Y	255	58346	6803	1440	32416	3752	85	41945	2459	1026
19 ^a	M	59	Severe	12	17	8	Y	1069	2612	7244	2174	871	5657	289	41431	8292	720
20 ^a	M	68	Severe	6	8	8	N	185	10906	274	308	10273	159	85	1989	368	905
21 ^a	M	78	Severe	5	43	24	N	85	5885	151	187	9767	280	85	12755	7586	281
22 ^a	M	77	Severe	29	32	40	N	85	49325	645	85	48066	428	85	54024	4527	435
23 ^a	M	20	Severe	9	26	20	N	85	818	357	153	300	392	85	557	146	94
24 ^a	M	99	Severe	49	13	30	N	122	9887	5177	205	14989	1144	85	1283	365	283
25 ^a	F	85	Moderate	5	5	3	N	85	85	119	85	85	85	85	238	388	15
				18	18			245	3398	1674	235	2203	1184	85	142126	49883	n.d.
26 ^a	M	63	Severe	2	12	5	N	85	202	140	85	230	85	85	544	413	23
27 ^a	F	36	Severe	7	11	4	N	85	210	85	85	153	85	85	1342	85	82
28 ^a	M	41	Severe	5	7	5	N	104	85	136	85	407	85	85	324	85	163
29 ^a	M	26	Severe	3	11	5	N	85	617	675	85	349	135	85	321	85	102
30 ^a	F	56	Severe	6	11	4	N	281	2366	1822	183	1145	1311	85	1562	140	111
31 ^a	M	34	Severe	10	9	6	N	293	2736	2732	363	1302	728	85	770	202	403
				13	12			372	7292	1216	676	4305	1391	85	5137	320	n.d.
32 ^a	M	62	Severe	4	10	33	Y	682	6126	1771	438	2642	218	154	1025	20215	503
				7	13			1598	23819	1248	849	6533	375	193	4764	18438	n.d.
				11	17			593	6229	934	646	5486	912	105	3230	49453	n.d.
33 ^a	M	51	Severe	4	7	5	N	550	13780	695	813	14374	164	85	342	340	1230
34 ^a	M	48	Severe	4	11	6	N	85	682	1500	85	320	279	212	13527	2280	89
35 ^a	F	54	Severe	4	11	5	N	104	1761	402	85	719	114	85	405	151	297
36 ^a	F	49	Severe	4	11	9	N	917	3451	4321	709	883	1430	158	3256	4901	1134
37 ^a	F	73	Severe	4	18	6	N	85	2950	113	85	3729	85	85	109681	5668	205
38 ^a	M	58	Severe	9	10	8	N	368	7193	863	256	9237	899	1537	7856	3483	432
39 ^a	F	50	Severe	9	15	N/A	N/A	2129	63143	4718	707	28898	3074	85	41575	9134	1354
40 ^a	F	83	Severe	3	8	21	N	85	85	303	85	85	85	85	218	127	15
41 ^a	M	72	Severe	9	9	32	Y	85	85	85	85	85	85	85	227	85	15
42 ^a	F	62	Severe	11	14	20	N	371	4691	18777	85	727	2588	85	2243	4434	954
43 ^a	F	65	Severe	9	19	12	N	85	85	85	85	85	144	85	85	85	28
44 ^a	M	64	Severe	4	14	17	Y	184	1817	864	179	2197	85	1022	4851	3491	525
45 ^a	M	65	Severe	31	40	20	N	342	26380	1889	457	17252	1269	85	8305	383	596
46 ^a	M	55	Severe	31	46	2	N	955	9097	600	1216	4750	284	276	2928	1075	1007
47 ^a	F	36	nd	8	15	nd	nd	664	86698	313	nd	nd	nd	nd	nd	nd	2233
48 ^a	M	76	nd	7	17	nd	nd	1493	28352	6865	nd	nd	nd	nd	nd	nd	2561

^aClinical data, RBD binding and neutralization previously published in Suthar, et al (2020)

^bIndividuals were discharged from hospital at time of sampling

^cIndividuals included in serum depletion analysis