WHAT IS CLAIMED IS:

1. A pharmaceutically acceptable composition comprising a first antibody or antibody fragment that binds to a SARS-CoV-2 surface spike protein and a second antibody or antibody fragment that binds to a SAR-CoV-2 surface spike protein, wherein the first antibody or antibody fragment comprises a CDRH1 comprising the amino acid sequence of SEQ ID NO:59, a CDRH2 comprising the amino acid sequence of SEQ ID NO:60, a CDRH3 comprising the amino acid sequence of SEQ ID NO:61, a CDRL1 comprising the amino acid sequence of SEQ ID NO:89, a CDRL2 comprising the amino acid sequence of SEQ ID NO:90, a CDRL3 comprising the amino acid sequence of SEQ ID NO:91, and wherein the second antibody or antibody fragment comprises a CDRH1 comprising the amino acid sequence of SEQ ID NO:68, a CDRH2 comprising the amino acid sequence of SEQ ID NO:69, a CDRH3 comprising the amino acid sequence of SEQ ID NO:70, a CDRL1 comprising the amino acid sequence of SEQ ID NO:98, a CDRL2 comprising the amino acid sequence of SEQ ID NO:99, a CDRL3 comprising the amino acid sequence of SEQ ID NO:100.

2. The pharmaceutically acceptable composition of claim 1, wherein the first antibody or antibody fragment comprises a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:33 and a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:34, and wherein the second antibody or antibody fragment comprises a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:39 and a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:40.

3. The pharmaceutically acceptable composition of claim 1 or 2, wherein the first antibody comprises a YTE mutation, and wherein the second antibody comprises a YTE mutation.

4. The pharmaceutically acceptable composition of any one of claims 1-3, wherein the first antibody is an IgG1, and wherein the second antibody is an IgG1.

5. An isolated antibody or antibody fragment that binds to a SARS-CoV-2 surface spike protein, wherein the antibody or fragment comprises a CDRH1 comprising the amino acid sequence of SEQ ID NO:59, a CDRH2 comprising the amino acid sequence of SEQ ID NO:60, a CDRH3 comprising the amino acid sequence of SEQ ID NO:61, a CDRL1 comprising the amino acid sequence of SEQ ID NO:89, a CDRL2 comprising the amino acid sequence of SEQ ID NO:90, a CDRL3 comprising the amino acid sequence of SEQ ID NO:91.

6. The antibody or antibody fragment of claim 5, wherein the antibody or fragment comprises a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:33 and a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:34.

7. The antibody or antibody fragment of claim 6, wherein the antibody comprises a YTE mutation.

8. The antibody or antibody fragment of any one of claims 5-7, wherein the antibody is an IgG1.

9. An isolated antibody or antibody fragment that binds to a SARS-CoV-2 surface spike protein, wherein the antibody or fragment comprises a CDRH1 comprising the amino acid sequence of SEQ ID NO:68, a CDRH2 comprising the amino acid sequence of SEQ ID NO:69, a CDRH3 comprising the amino acid sequence of SEQ ID NO:70, a CDRL1 comprising the amino acid sequence of SEQ ID NO:98, a CDRL2 comprising the amino acid sequence of SEQ ID NO:99, a CDRL3 comprising the amino acid sequence of SEQ ID NO:100.

10. The antibody or antibody fragment of claim 9, wherein the antibody or fragment comprises a heavy chain variable sequence comprising the amino acid sequence of SEQ

ID NO:39 and a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:40.

11. The antibody or antibody fragment of claim 10, wherein the antibody comprises a YTE mutation.

12. The antibody or antibody fragment of any one of claims 9-11, wherein the antibody is an IgG1.

13. The antibody or antibody fragment of any one of claims 5-12, wherein the antibody or fragment is monoclonal.

14. The antibody or antibody fragment of any one of claims 5-12, wherein the antibody or antibody fragment further comprises a detectable label.

15. An isolated antibody or antibody fragment that binds to a SARS-CoV-2 surface spike protein, wherein the antibody or fragment comprises

(a) a CDRH1 comprising the amino acid sequence of SEQ ID NO:41, a CDRH2 comprising the amino acid sequence of SEQ ID NO:42, a CDRH3 comprising the amino acid sequence of SEQ ID NO:43, a CDRL1 comprising the amino acid sequence of SEQ ID NO:71, a CDRL2 comprising the amino acid sequence of SEQ ID NO:72, a CDRL3 comprising the amino acid sequence of SEQ ID NO:73;

(b) a CDRH1 comprising the amino acid sequence of SEQ ID NO:44, a CDRH2 comprising the amino acid sequence of SEQ ID NO:45, a CDRH3 comprising the amino acid sequence of SEQ ID NO:46, a CDRL1 comprising the amino acid sequence of SEQ ID NO:74, a CDRL2 comprising the amino acid sequence of SEQ ID NO:75, a CDRL3 comprising the amino acid sequence of SEQ ID NO:76;

(c) a CDRH1 comprising the amino acid sequence of SEQ ID NO:47, a CDRH2 comprising the amino acid sequence of SEQ ID NO:48, a CDRH3 comprising the amino acid sequence of SEQ ID NO:49, a CDRL1 comprising the amino acid sequence of SEQ ID NO:77, a CDRL2 comprising the amino acid sequence of SEQ ID NO:78, a CDRL3 comprising the amino acid sequence of SEQ ID NO:79;

(d) a CDRH1 comprising the amino acid sequence of SEQ ID NO:50, a CDRH2 comprising the amino acid sequence of SEQ ID NO:51, a CDRH3 comprising the amino acid sequence of SEQ ID NO:52, a CDRL1 comprising the amino acid sequence of SEQ ID NO:80, a CDRL2 comprising the amino acid sequence of SEQ ID NO:81, a CDRL3 comprising the amino acid sequence of SEQ ID NO:82;

(e) a CDRH1 comprising the amino acid sequence of SEQ ID NO:53, a CDRH2 comprising the amino acid sequence of SEQ ID NO:54, a CDRH3 comprising the amino acid sequence of SEQ ID NO:55, a CDRL1 comprising the amino acid sequence of SEQ ID NO:83, a CDRL2 comprising the amino acid sequence of SEQ ID NO:84, a CDRL3 comprising the amino acid sequence of SEQ ID NO:85;

(f) a CDRH1 comprising the amino acid sequence of SEQ ID NO:56, a CDRH2 comprising the amino acid sequence of SEQ ID NO:57 a CDRH3 comprising the amino acid sequence of SEQ ID NO:58, a CDRL1 comprising the amino acid sequence of SEQ ID NO:86, a CDRL2 comprising the amino acid sequence of SEQ ID NO:87, a CDRL3 comprising the amino acid sequence of SEQ ID NO:88;

(g) a CDRH1 comprising the amino acid sequence of SEQ ID NO:62, a CDRH2 comprising the amino acid sequence of SEQ ID NO:63 a CDRH3 comprising the amino acid sequence of SEQ ID NO:64, a CDRL1 comprising the amino acid sequence of SEQ ID NO:65, a CDRL2 comprising the amino acid sequence of SEQ ID NO:66, a CDRH3 comprising the amino acid sequence of SEQ ID NO:67; or

(h) a CDRH1 comprising the amino acid sequence of SEQ ID NO:65, a CDRH2 comprising the amino acid sequence of SEQ ID NO:66, a CDRH3 comprising the amino acid sequence of SEQ ID NO:67, a CDRL1 comprising the amino acid sequence of SEQ ID NO:95, a CDRL2 comprising the amino acid sequence of SEQ ID NO:96, a CDRL3 comprising the amino acid sequence of SEQ ID NO:97.

16. The antibody or antibody fragment of claim 15, wherein the antibody or fragment comprises

(a) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:21 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:22;

(b) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:23 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:24;

(c) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:25 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:26;

(d) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:27 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:28;

(e) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:29 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:30;

(f) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:31 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:32;

(g) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:35 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:36; or

(h) a heavy chain variable sequence comprising the amino acid sequence of SEQ ID NO:37 and/or a light chain variable sequence comprising the amino acid sequence of SEQ ID NO:38.

17. A vaccine formulation comprising the antibody or antibody fragment of any one of claims 5-17.

18. Use of the pharmaceutically acceptable composition of any one of claims 1-4 in the manufacture of a medicament for reducing the likelihood of infection of a subject at risk of contracting SARS-CoV-2, wherein the pharmaceutically acceptable composition is to be delivered to the subject.

19. Use of the antibody or antibody fragment of any one of claims 5-8 and the antibody or antibody fragment of any one of claims 9-12 in the manufacture of a medicament for

reducing the likelihood of infection of a subject at risk of contracting SARS-CoV-2, wherein the antibodies or antibody fragments are to be delivered to the subject.

20. Use of the pharmaceutically acceptable composition of any one of claims 1-4 in the manufacture of a medicament for treating a subject infected with SARS-CoV-2, wherein the pharmaceutically acceptable composition is to be delivered to the subject.

21. Use of the antibody or antibody fragment of any one of claims 5-8 and the antibody or antibody fragment of any one of claims 9-12 in the manufacture of a medicament for treating a subject infected with SARS-CoV-2, wherein the antibodies or antibody fragments are to be delivered to the subject.

22. A method of detecting COVID-19 infection with SARS-CoV-2 in a subject comprising (a) contacting a sample from the subject with the antibody or fragment of any one of claims 5-12; and (b) detecting SARS-CoV-2 in the sample by binding of the antibody or antibody fragment to a SARS-CoV-2 antigen in the sample.