

CLAIMS

1. A peptide comprising the following amino acid sequence:  
MeA-MeF-S-Cha-Y-S-Y-Y-R-R-Cha-C (SEQ ID NO: 2)  
or an amino acid sequence having a substitution, addition, deletion, or insertion in 1 to 10 amino acid residues selected from the group consisting of amino acid residues at positions 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 in the above amino acid sequence.
2. A peptide comprising the following amino acid sequence:  
MeA-MeF-S-Cha-Y-S-Y-Y-R-R-Cha-C (SEQ ID NO: 2)  
or an amino acid sequence having a substitution, addition, deletion, or insertion in 1 to 8 amino acid residues selected from the group consisting of amino acid residues at positions 1, 2, 3, 5, 6, 8, 9 and 10 in the above amino acid sequence.
3. A peptide comprising the following amino acid sequence:  
X1-X2-X3-Cha-X4-X5-Y-X6-X7-X8-Cha-C (SEQ ID NO: 1),  
wherein  
X1 is A, E, MeA, or MeE;  
X2 is an N-methylamino acid;  
X3 is S or Aib;  
X4 is an amino acid having an unsubstituted or substituted aromatic ring in a side chain;  
X5 is any amino acid;  
X6 is an amino acid having an unsubstituted or substituted aromatic ring in a side chain;  
X7 is any amino acid; and  
X8 is any basic amino acid.
4. The peptide according to claim 3, wherein X1 is MeA or MeE.
5. The peptide according to claim 3 or 4, wherein X2 is MeF or MeNle.

6. The peptide according to any one of claims 3 to 5, wherein X4 is unsubstituted or substituted Y, or unsubstituted or substituted F.
7. The peptide according to any one of claims 3 to 6, wherein X4 is Y or F4F.
8. The peptide according to any one of claims 3 to 7, wherein X5 is any hydrophilic amino acid or Aib, or any N-methylated hydrophilic amino acid or Aib.
9. The peptide according to any one of claims 3 to 8, wherein X5 is one of Aib, E, K, S, dd, ddap, ds, or MeE.
10. The peptide according to any one of claims 3 to 9, wherein X6 is unsubstituted or substituted Y, or unsubstituted or substituted F.
11. The peptide according to any one of claims 3 to 10, wherein X6 is one of Y, Yae, 3Py, or Nal1.
12. The peptide according to any one of claims 3 to 11, wherein X7 is one of A, Ahp, Cit, Dab, E, F4COO, K, or R.
13. The peptide according to any one of claims 3 to 12, wherein X8 is one of K, R, or A4p.
14. The peptide according to any one of claims 1 to 13, further comprising D-glutamic acid at a C-terminus.
15. The peptide according to any one of claims 1 to 14, wherein the peptide comprises or consists of an amino acid sequence set forth in any one of SEQ ID NOs: 2-126.
16. The peptide according to any one of claims 1 to 14, wherein the peptide comprises or consists of an amino acid sequence set forth in any one of SEQ ID NOs: 132-234.
17. The peptide according to any one of claims 1 to 16, which is a cyclic peptide.
18. The peptide according to claim 16, which has a cyclic structure in which a chloroacetylated amino acid is bonded to a cysteine residue included in the peptide.
19. The peptide according to any one of claims 1 to 18, further comprising an additional amino acid residue.
20. A pharmaceutical composition comprising the peptide according to any one of

claims 1 to 19.

21. The pharmaceutical composition according to claim 20, which has anti-SARS-CoV-2 virus activity.

22. The pharmaceutical composition according to claim 20 or 21 for prevention or treatment of coronavirus infection.

23. The pharmaceutical composition according to any one of claims 22, wherein the coronavirus infection is COVID-19.

24. The pharmaceutical composition according to any one of claims 20 to 23, comprising a pharmaceutically acceptable salt of the peptide according to any one of claims 1 to 19, or a solvate thereof.

25. A diagnostic composition comprising the peptide according to any one of claims 1 to 19 for diagnosing SARS-CoV-2 virus infection.

26. The pharmaceutical composition according to any one of claims 20 to 24, which is used in combination with an additional agent for prevention or treatment of coronavirus infection.

27. The pharmaceutical composition according to claim 26, wherein the additional agent for prevention or treatment of coronavirus infection is selected from the group consisting of remdesivir, a combined agent of casirivimab and imdevimab, and molnupiravir or an active form thereof.

28. The pharmaceutical composition according to claim 26 or 27, which is administered simultaneously with the additional agent for prevention or treatment of coronavirus infection.

29. A combination preparation comprising the peptide according to any one of claims 1 to 19 and an additional agent for prevention or treatment of coronavirus infection.

30. An additional agent for prevention or treatment of coronavirus infection, which is used in combination with a pharmaceutical composition comprising the peptide according to any one of claims 1 to 19.