

Claims:

1. A formulation comprising at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof, for use as an inhibitor of a coronavirus in a subject.
2. The formulation of claim 1, wherein the at least one macrocyclic lactone is an avermectin, a milbemycin, or both.
3. The formulation of claim 2, wherein the avermectin is selected from abamectin, dimadectin, doramectin, emamectin, eprinomectin, ivermectin, latidectin, lepimectin, and selamectin.
4. The formulation of claim 3, wherein the avermectin is ivermectin.
5. The formulation of claim 2, wherein the milbemycin is selected from milbemectin, milbemycin D, milbemycin oxime, moxidectin, and nemadectin.
6. The formulation of claim 5, wherein the milbemycin is moxidectin.
7. The formulation of claim 2, wherein the avermectin is ivermectin and the milbemycin is moxidectin.
8. The formulation of any one of claims 1 to 7, wherein the subject is a human.
9. The formulation of claim 8 wherein the coronavirus is coronavirus 229E, coronavirus NL63, coronavirus OC43, SARS-CoV, MERS-CoV, SARS-CoV-2, or variants thereof.
10. The formulation of claim 9 wherein the coronavirus is SARS-CoV-2 or a variant thereof.
11. The formulation of any one of claims 1 to 7, wherein the subject is a dog, cat, horse, cow, sheep, camel, chicken or pig.
12. A method of inhibiting a coronavirus in a subject or treating a subject with a coronavirus infection, the method comprising administering a therapeutically effective amount of at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof to the subject
13. A method of preventing or reducing the risk of a coronavirus infection in a subject, the method comprising administering to the subject a therapeutically effective amount at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof.
14. A method for preventing antibody dependent enhanced (ADE) coronavirus infection in a subject, comprising administering a therapeutically effective amount of at least one macrocyclic lactone, or a salt, hydrate, solvate, tautomer or stereoisomer thereof to the subject.

15. The method of any one of claims 12 to 14, wherein the level of detectable coronavirus in the subject is reduced by at least 50%.
16. The method of claim 15, wherein the wherein the level of detectable coronavirus in the subject is reduced by at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 91%, at least 92%, at least 93%, at least 94%, at least 95%, at least 96%, at least 97%, at least 98%, at least 99%, at least 99.5%, or at least 99.9%.
17. The method of claim 15 or 16, wherein the level of detectable coronavirus is reduced over a period of 1, 2, 3, or more days after administration of the macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof.
18. The method of any one of claims 12 to 17, wherein the at least one macrocyclic lactone is an avermectin or a milbemycin.
19. The method of claim 18 wherein the avermectin is selected from abamectin, dimadectin, doramectin, emamectin, eprinomectin, ivermectin, latidectin, lepimectin, or selamectin.
20. The method of claim 19 wherein the avermectin is ivermectin.
21. The method of claim 18 wherein the milbemycin is selected from milbemycin D, milbemycin oxime, moxidectin, and nemadectin.
22. The method of claim 23, wherein the milbemycin is moxidectin.
23. The method of claim 20, wherein the avermectin is ivermectin and the milbemycin is moxidectin.
24. The method of any one of claims 12 to 23 wherein the subject is a human.
25. The method of claim 24 wherein the coronavirus is coronavirus 229E, coronavirus NL63, coronavirus OC43, SARS-CoV, MERS-CoV, SARS-CoV-2, or variants thereof.
26. The method of claim 25 wherein the coronavirus is SARS-CoV-2 or a SARS-CoV-2 variant.
27. The method of any one of claims 12-26 wherein the at least one macrocyclic lactone is administered at a dose of about 0.1 mg/kg to about 1.0 mg/kg body weight of the subject.
28. Use of at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof for the manufacture of a medicament for the prevention or treatment of a coronavirus infection.

29. Use of at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof for the manufacture of a medicament for reducing the risk of acquiring a coronavirus infection.
30. Use of at least one macrocyclic lactone or a salt, hydrate, solvate, tautomer or stereoisomer thereof in the preparation of a medicament for preventing antibody dependent enhanced (ADE) coronavirus infection in a subject.