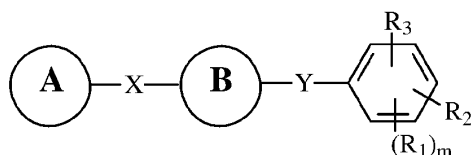


WHAT IS CLAIMED:

1. A method of treating a coronavirus infection in a subject in need thereof by administering to the subject a formulation having a therapeutically effective amount of a compound of Formula (I):



(I)

wherein

A is phenyl, indolyl, or indazolyl, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

B is an imidazole or benzimidazole, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-halo(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, hydroxyl, or NO₂;

R₁, **R₂** and **R₃** are independently at least one of hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

X is a bond or NH;

Y is -C=O; and

m is 1-3, or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

2. The method according to claim 1, wherein **A** is phenyl or indolyl, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

B is an imidazole, optionally substituted with at least one of (C₁-C₄)alkyl;

R₁, **R₂** and **R₃** are independently at least one of hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

X is a bond or NH;

Y is -C=O; and

m is 1-3, or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

3. The method according to claim 1, wherein **A** is phenyl, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

B is an imidazole, optionally substituted with at least one of (C₁-C₄)alkyl;

R₁, **R₂** and **R₃** are independently at least one of hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

X is a bond or NH;

Y is -C=O; and

m is 1-3, or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

4. The method according to claim 1, wherein **A** is indolyl, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

B is an imidazole, optionally substituted with at least one of (C₁-C₄)alkyl;

R₁, **R₂** and **R₃** are independently at least one of hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

X is a bond or NH;

Y is -C=O; and

m is 1-3, or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

5. The method according to claim 1, wherein **A** is indolyl, optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

B is an imidazole, optionally substituted with at least one of (C₁-C₄)alkyl;

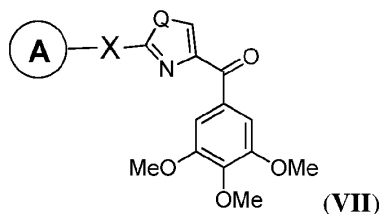
R₁, **R₂** and **R₃** are independently at least one of hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂;

X is a bond;

Y is -C=O; and

m is 1-3, or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

6. A method of treating a coronavirus infection in a subject in need thereof by administering to the subject a formulation having a therapeutically effective amount of a compound of the Formula **VII**:



wherein

X is a bond or NH;

Q is NH and

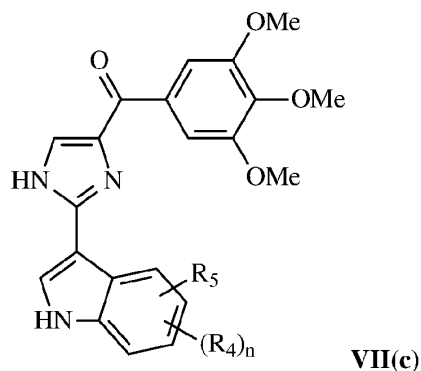
A is a phenyl, indolyl, or indazolyl ring optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂; or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

7. The method according to claim 6, wherein **X** is a bond.

8. The method according to claim 6, wherein **X** is NH.

9. The method according to claim 6, wherein **X** is a bond; **Q** is NH; and **A** is an indolyl ring optionally substituted with at least one of (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂; or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

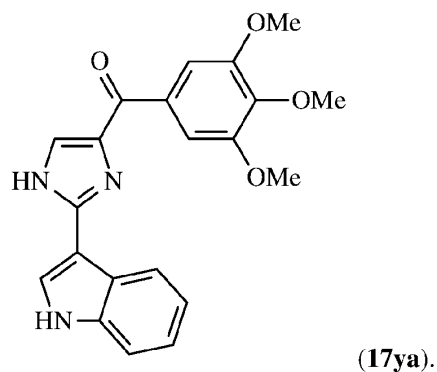
10. A method of treating a coronavirus infection in a subject in need thereof by administering to the subject a formulation having a therapeutically effective amount of a compound of the Formula **VII(c)**:



wherein

R₄ and **R₅** independently hydrogen, (C₁-C₄)alkyl, halo(C₁-C₄)alkyl, O-(C₁-C₄)alkyl, O-(C₁-C₄)haloalkyl, (C₁-C₄)alkylamino, amino(C₁-C₄)alkyl, F, Cl, Br, I, CN, -CH₂CN, NH₂, hydroxyl, OC(O)CF₃, -OCH₂Ph, -NHCO-(C₁-C₄)alkyl, COOH, -C(O)Ph, C(O)O-(C₁-C₄)alkyl, C(O)H, -C(O)NH₂ or NO₂; and **n** is 1-4; or a pharmaceutically acceptable salt, hydrate, polymorph, or isomer thereof.

11. A method of treating a coronavirus infection in a subject in need thereof by administering to the subject a formulation having a therapeutically effective amount of a compound **17ya** represented:



12. The method according to any one of claims 1-11, wherein the coronavirus infection is caused by SARS-CoV, MERS-CoV, or SARS-CoV-2.

13. The method according to any one of claims 1-11, wherein the coronavirus infection is caused by SARS-CoV-2.

14. The method according to claim 13, wherein the subject with SARS-CoV-2 infection is at high risk for acute respiratory distress syndrome (ARDS) or severe acute respiratory syndrome (SARS).

15. The method according to claim 13 or 14, wherein the method reduces mortality as compared to a patient population treated with placebo.

16. The method according to claim 13 or 14, wherein the method reduces morbidity as compared to a patient population treated with placebo.

17. The method according to claim 16, wherein the method reduces respiratory failure, days in ICU, days on mechanical ventilator, or improves WHO Ordinal Scale for Clinical Improvements as compared to a patient population treated with placebo.

18. The method according to claims 13 or 14, wherein the method reduces mortality or respiratory failure in subjects >60 years of age as compared to a patient population treated with placebo.

19. The method according to claim 13 or 14, wherein the method reduces mortality or respiratory failure when dosed in combination with remdesivir and/or dexamethasone as compared to a patient population treated with placebo.

20. The method according to any one of claims 13-14, further comprising a second therapy.

21. The method according to claim 20, wherein the second therapy is remdesivir, dexamethasone or another corticosteroid, or remdesivir plus a corticosteroid.

22. The method according to claim 20, wherein the second therapy is a medication that modulates the immune system or host cell factors, such as dexamethasone or another corticosteroid, an IL-6 inhibitor such as tocilizumab, interferons, an IL-1 inhibitor, or a kinase inhibitor such as baricitinib.

23. The method according to claim 20, wherein the second therapy is an antibody therapy such as high titer COVID-19 convalescent plasma, IVIG, a monoclonal antibody therapy such as casirivimab plus imdevimab, bamlanivimab, or bamlanivimab plus etesevimab.

24. The method according to claim 20, wherein the second therapy is a second antiviral therapy that is at least one of favipiravir, lopinavir, ritonavir, remdesivir, janus kinase inhibitors, hydroxychloroquine, azithromycin, a neuraminidase inhibitor, amantadine, rimantadine, a hemagglutinin inhibitor, ribavirin, idoxuridine, trifluridine, vidarabine, acyclovir, ganciclovir, foscarnet, zidovudine, didanosine, peramivir, zalcitabine, stavudine, famciclovir, oseltamivir, zanamivir, or valaciclovir.

25. The method according to claim 20, wherein the second therapy is at least one of vitamins C or D, zinc, famotidine, ivermectin, or angiotensin converting enzyme inhibitor (ACEI) or angiotensin receptor binding (ARB) agent.

26. The method according to claim 13 or 14, wherein the compound is administered in an amount of about 1 to about 100 mg.

27. The method according to claim 13 or 14, wherein the compound is administered in an amount of about 4 mg to about 90 mg.

28. The method according to claim 13 or 14, wherein the compound is administered in an amount of about 4 mg to about 45 mg.

29. The method according to any one of claims 1-14 further comprising a pharmaceutically acceptable excipient.