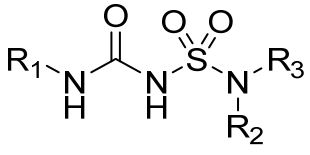
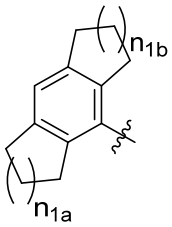
CLAIMS:

1. A compound of Formula (I):



(I),

or a prodrug, solvate, or pharmaceutically acceptable salt thereof, wherein:

R_1 is  , wherein n_{1a} and n_{1b} each independently are 0 or 1;

R_2 is $-(CH_2)_{n2}-R_{2S}$, wherein n_2 is 1 or 2;

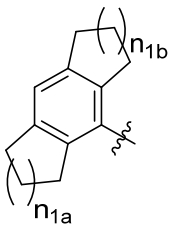
R_{2S} is 4- to 8-membered heterocycloalkyl in which at least one heteroatom is O, wherein the 4- to 8-membered heterocycloalkyl is optionally substituted with one or more R_{2SS};

each R_{2SS} independently is C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 haloalkyl, halo, -CN, -OH, $-O(C_1$-C_6 alkyl), $-NH_2$, $-NH(C_1$-C_6 alkyl), $-N(C_1$-C_6 alkyl$)_2$, or oxo;

R_3 is 5- or 6-membered heteroaryl optionally substituted with one or more R_{3S}; and

each R_{3S} independently is halo, C_1-C_6 alkyl, or C_1-C_6 haloalkyl.

2. The compound of any one of the preceding claims, wherein:

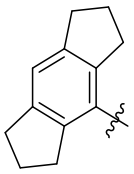
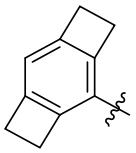
R_1 is  , wherein n_{1a} and n_{1b} each independently are 0 or 1;

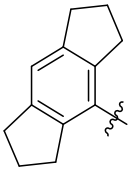
R_2 is $-(CH_2)_{n2}-R_{2S}$, wherein n_2 is 1 or 2;

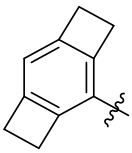
R_{2S} is 4- to 8-membered heterocycloalkyl in which at least one heteroatom is O, wherein the 4- to 8-membered heterocycloalkyl is optionally substituted with one or more -OH; and

R_3 is 5- or 6-membered heteroaryl optionally substituted with one or more C_1-C_6 alkyl.

3. The compound of any one of the preceding claims, wherein both of n_{1a} and n_{1b} are 1.

4. The compound of any one of the preceding claims, wherein R_1 is  or .

5. The compound of any one of the preceding claims, wherein R_1 is .

6. The compound of any one of the preceding claims, wherein R_1 is .

7. The compound of any one of the preceding claims, wherein R_2 is $-CH_2-R_{2S}$.

8. The compound of any one of the preceding claims, wherein R_2 is $-CH_2-R_{2S}$; and R_{2S} is tetrahydrofuranyl or tetrahydropyranyl, wherein the tetrahydrofuranyl or tetrahydropyranyl is optionally substituted with one or more -OH.

9. The compound of any one of the preceding claims, wherein R_2 is $-(CH_2)_2-R_{2S}$.

10. The compound of any one of the preceding claims, wherein R_2 is $-(CH_2)_2-R_{2S}$; and R_{2S} is tetrahydrofuranyl or tetrahydropyranyl, wherein the tetrahydrofuranyl or tetrahydropyranyl is optionally substituted with one or more –OH.

11. The compound of any one of the preceding claims, wherein R_{2S} is 5- to 6-membered heterocycloalkyl in which at least one heteroatom is O, wherein the 5- to 6-membered heterocycloalkyl is optionally substituted with one or more R_{2SS}.

12. The compound of any one of the preceding claims, wherein R_{2S} is 5- to 6-membered heterocycloalkyl having one heteroatom, wherein the heteroatom is O, and wherein the 5- to 6-membered heterocycloalkyl is optionally substituted with one or more R_{2SS}.

13. The compound of any one of the preceding claims, wherein R_{2S} is 5-membered heterocycloalkyl having one heteroatom, wherein the heteroatom is O, and wherein the 5-membered heterocycloalkyl is optionally substituted with one or more R_{2SS}.

14. The compound of any one of the preceding claims, wherein R_{2S} is 6-membered heterocycloalkyl having one heteroatom, wherein the heteroatom is O, and wherein the 6-membered heterocycloalkyl is optionally substituted with one or more R_{2SS}.

15. The compound of any one of the preceding claims, wherein at least one R_{2SS} is -OH.

16. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydrofuranyl or tetrahydropyranyl, wherein the tetrahydrofuranyl or tetrahydropyranyl is optionally substituted with one or more R_{2SS}.

17. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydrofuranyl or tetrahydropyranyl, wherein the tetrahydrofuranyl or tetrahydropyranyl is optionally substituted with one or more -OH.

18. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydrofuranyl optionally substituted with one or more -OH.

19. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydrofuranyl.

20. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydrofuranyl substituted with one or more -OH.

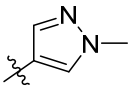
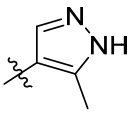
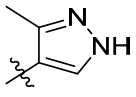
21. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydropyranyl.

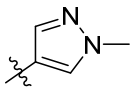
22. The compound of any one of the preceding claims, wherein R_{2S} is tetrahydropyranyl substituted with one or more -OH.

23. The compound of any one of the preceding claims, wherein R_3 is 5- or 6-membered heteroaryl substituted with one or more R_{3S}.

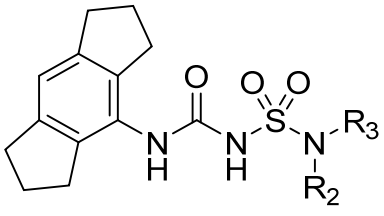
24. The compound of any one of the preceding claims, wherein R_3 is 5- or 6-membered heteroaryl substituted with one or more C_1-C_6 alkyl.

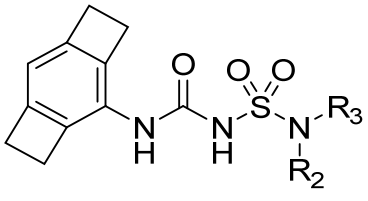
25. The compound of any one of the preceding claims, wherein R_3 is pyrazolyl substituted with one or more C_1-C_6 alkyl.

26. The compound of any one of the preceding claims, wherein R_3 is , , or .

27. The compound of any one of the preceding claims, wherein R_3 is .

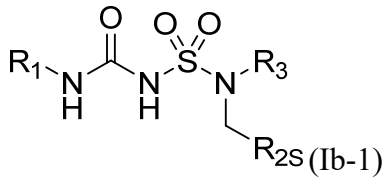
28. The compound of any one of the preceding claims, wherein the compound is of Formula (Ia-1) or (Ia-2):

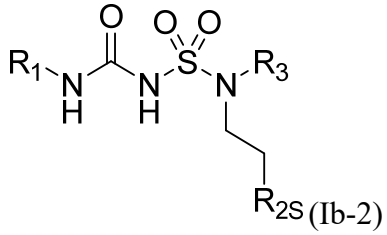

(Ia-1)


(Ia-2)

or a prodrug, solvate, or pharmaceutically acceptable salt thereof.

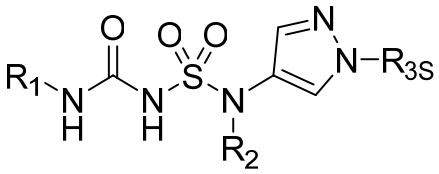
29. The compound of any one of the preceding claims, wherein the compound is of Formula (Ib-1) or (Ib-2):

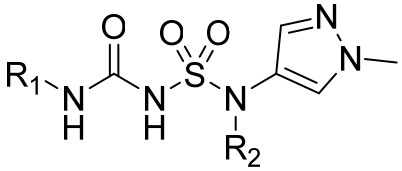

(Ib-1)

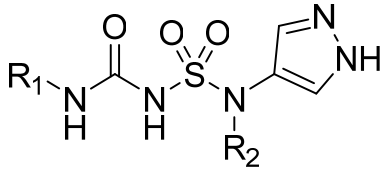

(Ib-2)

or a prodrug, solvate, or pharmaceutically acceptable salt thereof.

30. The compound of any one of the preceding claims, wherein the compound is of Formula (Ic-1), (Ic-2), or (Ic-3):

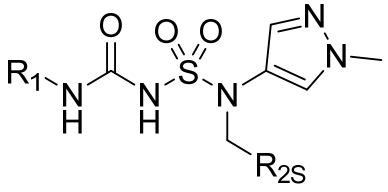

(Ic-1),

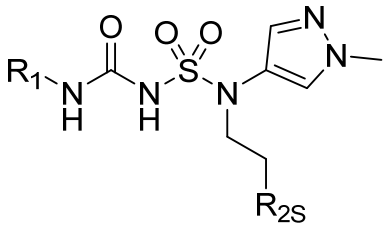

(Ic-2),


(Ic-3),

or a prodrug, solvate, or pharmaceutically acceptable salt thereof.

31. The compound of any one of the preceding claims, wherein the compound is of Formula (Id-1) or (Id-2):

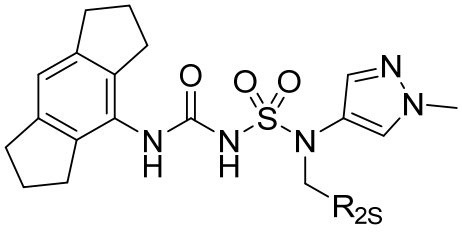

(Id-1),



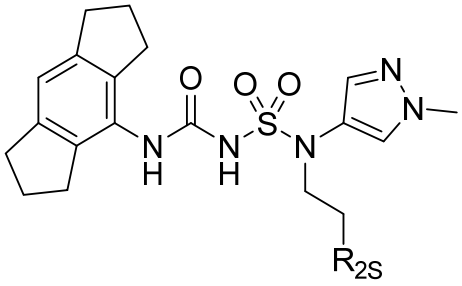
(Id-2),

or a prodrug, solvate, or pharmaceutically acceptable salt thereof.

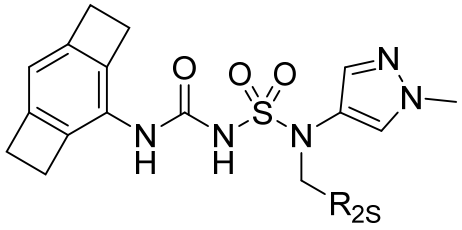
32. The compound of any one of the preceding claims, wherein the compound is of Formula (Ie-1), (Ie-2), (Ie-3), or (Ie-4):



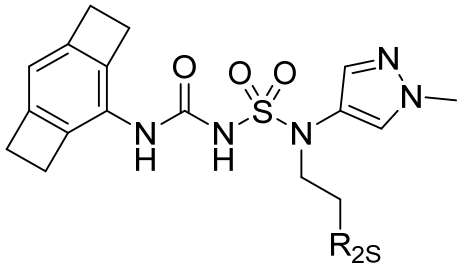
(Ie-1),



(Ie-2),



(Ie-3),



(Ie-4),

or a prodrug, solvate, or pharmaceutically acceptable salt thereof.

33. The compound of any one of the preceding claims, being selected from Compound Nos. 1, 1A, 1B, 2, 2A, 2B, 3, 3A, 3B, 4, 4A, 4B, 5, 5A, 5B, 6, 6A, 6B, 7A, 7B, 8A, and 8B, and prodrugs and pharmaceutically acceptable salts thereof.

34. A compound being an isotopic derivative of the compound of any one of the preceding claims.

35. A compound obtainable by, or obtained by, a method described herein;
optionally, the method comprises one or more steps described in Schemes 1-3.

36. An intermediate obtained by a method for preparing the compound of any one of the preceding claims;
optionally, the intermediate is selected from the intermediates described in Examples 1-12.

37. A pharmaceutical composition comprising the compound of any one of the preceding claims and a pharmaceutically acceptable diluent or carrier.

38. The compound of any one of claims 1-35, the intermediate of claim 36, or the pharmaceutical composition of claim 37, for use in inhibiting inflammasome activity; optionally, the inflammasome is NLRP3 inflammasome, and the activity is *in vitro* or *in vivo*.

39. The compound of any one of claims 1-35, the intermediate of claim 36, or the pharmaceutical composition of claim 37, for use in treating or preventing a disease or disorder.

40. Use of the compound of any one of claims 1-35, the intermediate of claim 36, or the pharmaceutical composition of claim 37 in the manufacture of a medicament for inhibiting inflammasome activity; optionally, the inflammasome is NLRP3 inflammasome, and the activity is *in vitro* or *in vivo*.

41. Use of the compound of any one of claims 1-35, the intermediate of claim 36, or the pharmaceutical composition of claim 37 in the manufacture of a medicament for treating or preventing a disease or disorder associated with an implicated inflammasome activity; optionally, the disease or disorder is a disease or disorder in which inflammasome activity is implicated.

42. The use of claim 41, wherein the disease or disorder is an inflammatory disorder, an autoinflammatory disorder, an autoimmune disorder, a neurodegenerative disease, or cancer.

43. The use of claim 41 or 42, wherein the disease or disorder is an inflammatory disorder, an autoinflammatory disorder or an autoimmune disorder; optionally, the disease or disorder is selected from cryopyrin-associated auto-inflammatory syndrome (CAPS; *e.g.*, familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS), chronic infantile neurological cutaneous and articular (CINCA) syndrome/ neonatal-onset multisystem inflammatory disease (NOMID)), familial Mediterranean fever (FMF), nonalcoholic fatty liver disease (NAFLD), non-alcoholic steatohepatitis (NASH), gout, rheumatoid arthritis, osteoarthritis, Crohn's disease, chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD), fibrosis, obesity, type 2 diabetes, multiple sclerosis, dermatological disease (*e.g.*, acne) and neuroinflammation occurring in protein misfolding diseases (*e.g.*, Prion diseases).

44. The use of claim 41 or 42, wherein the disease or disorder is a neurodegenerative disease; optionally, the disease or disorder is Parkinson's disease or Alzheimer's disease.

45. The use of claim 41 or 42, wherein the disease or disorder is cancer; optionally, the cancer is metastasising cancer, brain cancer, gastrointestinal cancer, skin cancer, non-small-cell lung carcinoma, head and neck squamous cell carcinoma or colorectal adenocarcinoma.

46. The use of claim 41 or 42, wherein the disease or disorder is an inflammatory disease.

47. The use of claim 46, wherein the inflammatory disease is associated with an infection.

48. The use of claim 47, wherein the infection is a viral infection.

49. The use of claim 48, wherein the viral infection is caused by a single stranded RNA virus.

50. The use of claim 49, wherein the single stranded RNA virus is a coronavirus.

51. The use of claim 50, wherein the coronavirus is Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV 2).

52. The use of claim 46, wherein the inflammatory disease is associated with an infection by SARS-CoV 2 leading to 2019 novel coronavirus disease(COVID-19).

53. The use of claim 46, wherein the inflammatory disease comprises cytokine release syndrome (CRS).

54. The use of claim 53, wherein the CRS is associated with COVID-19.

55. The use of claim 53, wherein the CRS is associated with an adoptive cell therapy.

56. The use of claim 55, wherein the adoptive cell therapy comprises chimeric antigen receptor T cell (CAR-T) therapy.