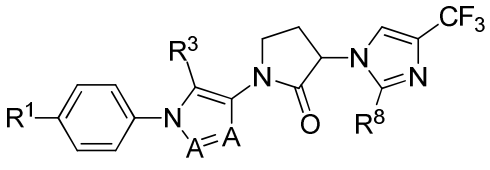
CLAIMS

1. Use of a CCR1 chemokine receptor antagonist in the preparation of a first pharmaceutical composition and either a PD-1 inhibitor or a PD-L1 inhibitor in the preparation of a second composition for use in combination for treating a subject having a solid tumor cancer, wherein a therapeutically effective amount of CCR1 chemokine receptor antagonist and a therapeutically effective amount of a PD-1 inhibitor or a PD-L1 inhibitor to be administered to the subject in need thereof .

2. The use of claim **1**, wherein a CCR1 chemokine receptor antagonist and a PD-1 inhibitor are to be administered as a combination.

3. The use of claim **1**, wherein a CCR1 chemokine receptor antagonist and a PD-L1 inhibitor are to be administered as a combination.

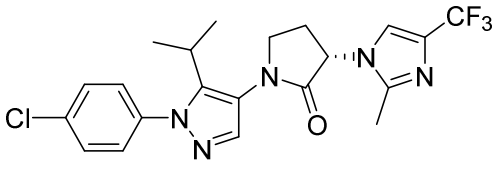
4. The use of any one of claims **1** to **3**, wherein the CCR1 chemokine receptor antagonist has the formula (IIIb1a):



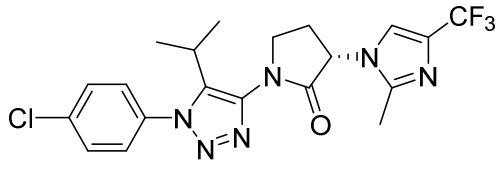
(IIIb1a)

wherein each A is N or CH and at least one A is N; R^1 is halogen; R^3 is selected from the group consisting of C_{1-8} alkyl, C_{3-8} cycloalkyl and C_{2-8} alkenyl; and R^8 is C_{1-8} alkyl; or a pharmaceutically acceptable salt thereof.

5. The use of any one of claims **1** to **3**, wherein the CCR1 chemokine receptor antagonist is selected from the group consisting of:



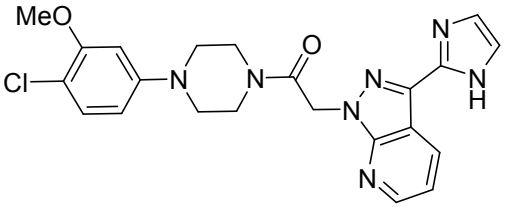
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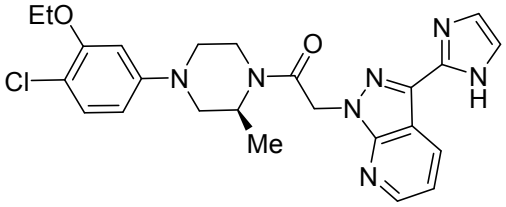
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or a pharmaceutically acceptable salt thereof.

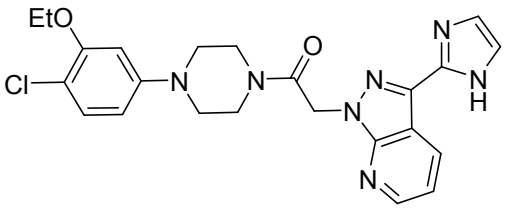
6. The use of any one of claims **1** to **3**, wherein the CCR1 chemokine receptor antagonist is selected from the group consisting of:



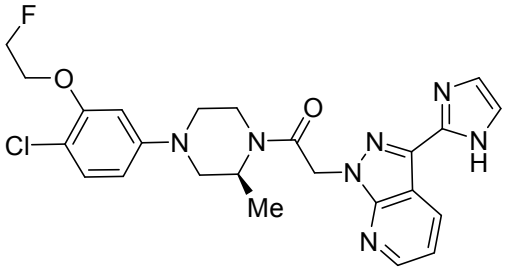
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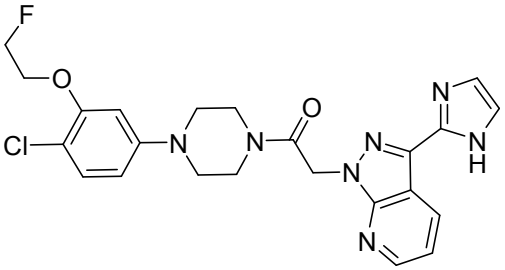
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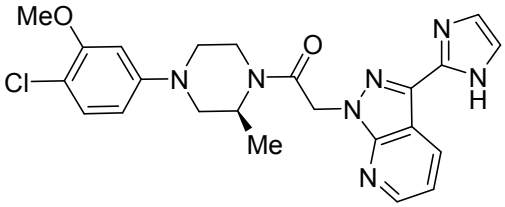
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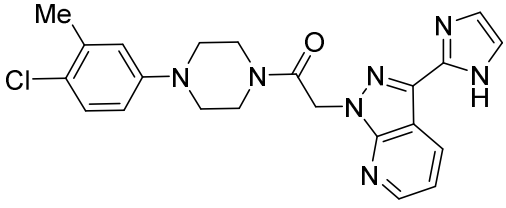
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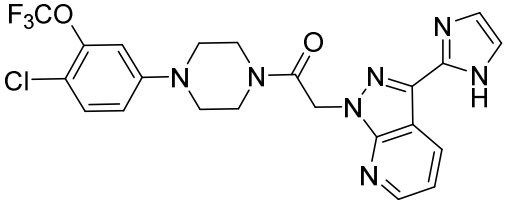


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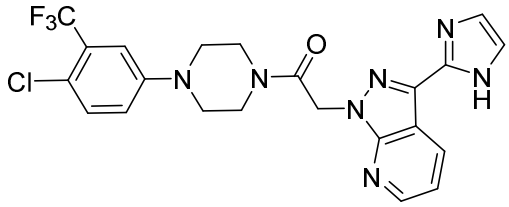


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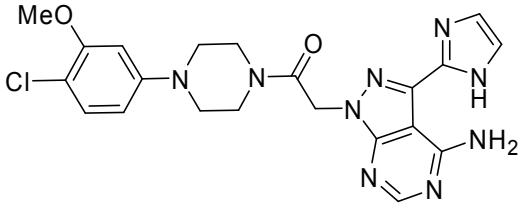
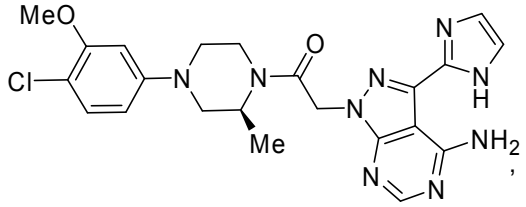
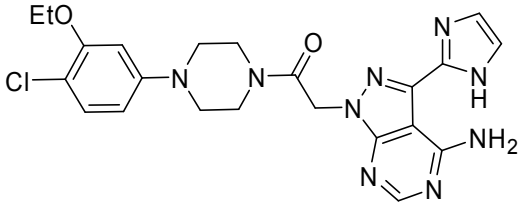
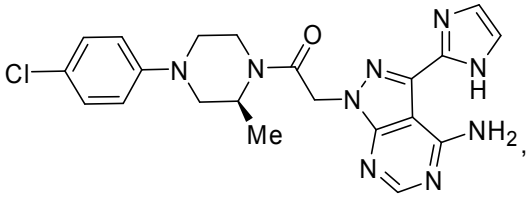
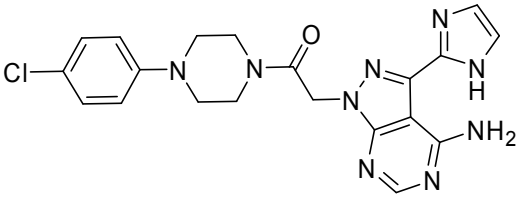
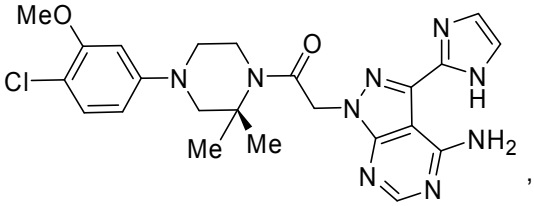
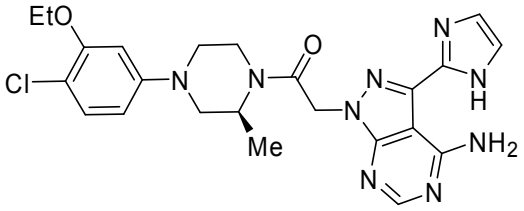
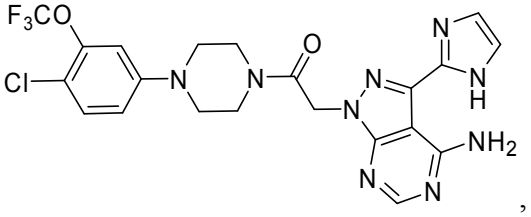
and



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or a pharmaceutically acceptable salt thereof.

7. The use of any one of claims **1** to **3**, wherein the CCR1 chemokine receptor antagonist is selected from the group consisting of:


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,

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and

,

or a pharmaceutically acceptable salt thereof.

8. The use of any one of claim **1**, **2** or **4** to **7**, wherein the PD-1 inhibitor is selected from the group consisting of pembrolizumab, nivolumab, IBI-308, mDX-400, BGB-108, MEDI-0680, SHR-1210, PF-06801591, PDR-001, GB-226, STI-1110, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

9. The use of any one of claim **1**, **3** or **4** to **7**, wherein the PD-L1 inhibitor is selected from the group consisting of durvalumab, atezolizumab, avelumab, BMS-936559, ALN-

PDL, TSR-042, KD-033, CA-170, CA-327, STI-1014, KY-1003, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

10. The use of any one of claims **1** to **9**, wherein the CCR1 chemokine receptor antagonist and the PD-1 inhibitor or the PD-L1 inhibitor are to be administered concomitantly.

11. The use of claim **10**, wherein the CCR1 chemokine receptor antagonist, and the PD-1 inhibitor or the PD-L1 inhibitor are to be administered in a combination formulation.

12. The use of any one of claims **1** to **9**, wherein the CCR1 chemokine receptor antagonist, and the PD-1 inhibitor or the PD-L1 inhibitor are to be administered sequentially.

13. The use of claim **12**, wherein the CCR1 chemokine receptor antagonist is to be administered prior to the PD-1 inhibitor or the PD-L1 inhibitor.

14. The use of claim **12**, wherein the CCR1 chemokine receptor antagonist is to be administered after the PD-1 inhibitor or the PD-L1 inhibitor.

15. The use of any one of claims 1 to **14**, wherein the CCR1 chemokine receptor antagonist is to be administered orally and the PD-1 inhibitor or the PD-L1 inhibitor is to be administered intravenously.

16. The use of any one of claims **1** to **15**, wherein the subject is a human subject.

17. The use of any one of claims **1** to **16**, wherein the solid tumor cancer is selected from the group consisting of brain cancer, breast cancer, triple negative breast cancer, bladder cancer, bone cancer, colorectal cancer, lung cancer, kidney cancer, liver cancer, stomach cancer, prostate cancer, sarcoma, melanoma, carcinoma, and lymphoma.

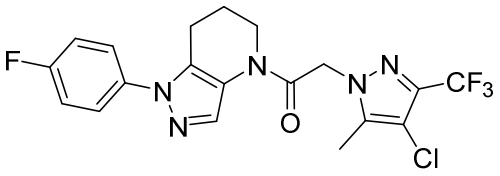
18. The use of any one of claims **1** to **16**, wherein the solid tumor cancer is triple negative breast cancer.

19. A composition for use in treating a subject having a solid tumor cancer, comprising a therapeutically effective amount of a CCR1 chemokine receptor antagonist, a therapeutically effective amount of a PD-1 inhibitor or a PD-L1 inhibitor, and a pharmaceutically acceptable carrier or excipient.

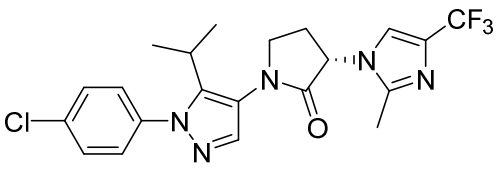
20. The composition of claim **19**, comprising the CCR1 chemokine receptor antagonist, the PD-1 inhibitor, and the pharmaceutically acceptable carrier or excipient.

21. The composition of claim **19**, comprising the CCR1 chemokine receptor antagonist, the PD-L1 inhibitor, and the pharmaceutically acceptable carrier or excipient.

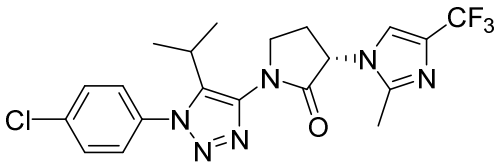
22. The composition of any one of claims **19** to **21**, wherein the CCR1 chemokine receptor antagonist is selected from the group consisting of



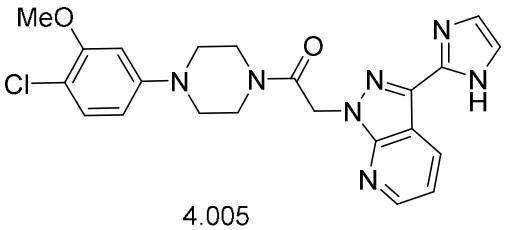
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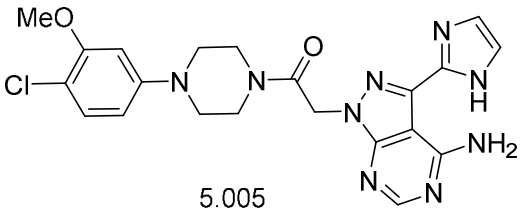
3.001



3.002



4.005



5.005

or a pharmaceutically acceptable salt thereof.

23. The composition of any one of claims **19**, **20** or **22**, wherein the PD-1 inhibitor is selected from the group consisting of pembrolizumab, nivolumab, IBI-308, mDX-400, BGB-108, MEDI-0680, SHR-1210, PF-06801591, PDR-001, GB-226, STI-1110, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

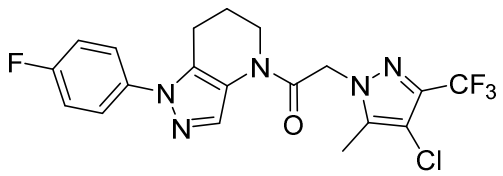
24. The composition of any one of claims **19**, **21** or **22**, wherein the PD-L1 inhibitor is selected from the group consisting of durvalumab, atezolizumab, avelumab, BMS-936559, ALN-PDL, TSR-042, KD-033, CA-170, CA-327, STI-1014, KY-1003, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

25. A kit for use in treating a subject having a solid tumor cancer, said kit comprising a therapeutically effective amount of a CCR1 chemokine receptor antagonist and a therapeutically effective amount of a PD-1 inhibitor or a PD-L1 inhibitor, with instruction for effective administration.

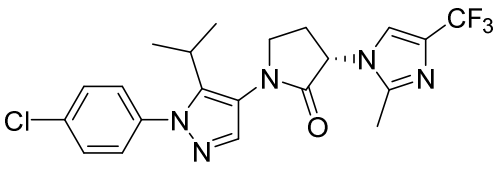
26. The kit of claim **25**, comprising the CCR1 chemokine receptor antagonist and the PD-1 inhibitor with instruction for effective administration.

27. The kit of claim **25**, comprising the CCR1 chemokine receptor antagonist and the PD-L1 inhibitor with instruction for effective administration.

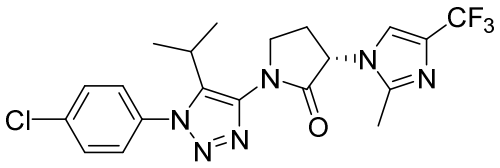
28. The kit of any one of claims **25** to **27**, wherein the CCR1 chemokine receptor antagonist is selected from the group consisting of



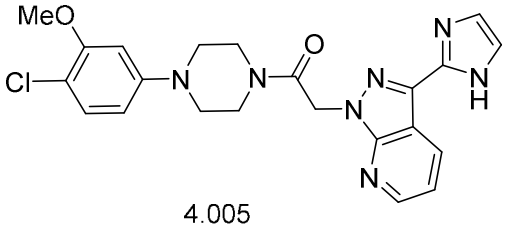
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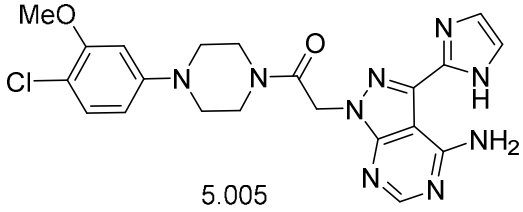
3.001



3.002



4.005



5.005

or a pharmaceutically acceptable salt thereof.

29. The kit of any one of claims **25**, **26** or **28**, wherein the PD-1 inhibitor is selected from the group consisting of pembrolizumab, nivolumab, IBI-308, mDX-400, BGB-108, MEDI-0680, SHR-1210, PF-06801591, PDR-001, GB-226, STI-1110, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

30. The kit of one of claims **25**, **27** or **28**, wherein the PD-L1 inhibitor is selected from the group consisting of durvalumab, atezolizumab, avelumab, BMS-936559, ALN-PDL, TSR-042, KD-033, CA-170, CA-327, STI-1014, KY-1003, biosimilars thereof, biobetters thereof, and bioequivalents thereof.

31. The kit of any one of claims **25** to **30**, wherein the CCR1 chemokine receptor antagonist and the PD-1 inhibitor or the PD-L1 inhibitor are formulated for concomitant administration.

32. The kit of any one of claims **25** to **30**, wherein the CCR1 chemokine receptor antagonist and the PD-1 inhibitor and/or the PD-L1 inhibitor are formulated for sequential administration.