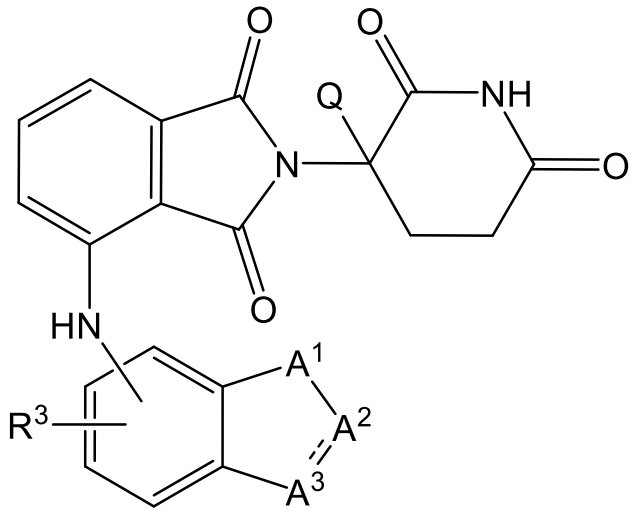
CLAIMS

1. A compound according to Formula (I):



(I)

and pharmaceutically acceptable salts, tautomers, isotopologues, and stereoisomers thereof,

wherein:

------ is a single or double bond;

A^1 is NR^1, O, $CH(R^2)$, or $C(R^2)_2$;

A^2 is NR^1, C=O, $CH(R^2)$, or $C(R^2)_2$;

A^3 is NR^1, O, $CH(R^2)$, or $C(R^2)_2$;

each R^1 is independently absent, H, a substituted or unsubstituted alkyl, a substituted or unsubstituted cyclylalkyl, a substituted or unsubstituted heterocyclyl, or a substituted or unsubstituted heterocyclylalkyl;

each R^2 is independently absent, H, an amine, or a substituted or unsubstituted alkyl;

each R^3 is independently H, a substituted or unsubstituted cycloalkyl, $-O-R^4$, CH_2-R', a substituted or unsubstituted aryl, a substituted or unsubstituted heteroaryl, a substituted or unsubstituted heterocyclyl, or a substituted 3,4-Dihydro-2(1H)-quinolinone;

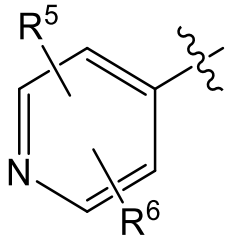
R^4 is a substituted or unsubstituted aryl, or a substituted or unsubstituted heteroaryl;

R' is a cycloalkyl; and

Q is H or CH_3.

2. The compound of claim 1, wherein ------ is a single bond.
3. The compound of claim 1, wherein ------ is a double bond.
4. The compound of any one of claims 1-3, wherein A^1 is NR_1.
5. The compound of any one of claims 1-4, wherein A^2 is NR_1 or $C(R^2)_2$.

6. The compound of any one of claims 1-5, wherein A^3 is NR_1.
7. The compound of any one of claims 1-6, wherein R^1 is CH_3.
8. The compound of any one of claims 1-7, R^2 is H or CH_3.
9. The compound of any one of claims 1-8, wherein R^3 is CH_2-R' and R' is a C_1-C_6 substituted or unsubstituted alkyl or a C_3-C_6 substituted or unsubstituted cycloalkyl.
10. The compound of claim 9, wherein R' is cyclopropyl.
11. The compound of any one of claims 1-8, wherein R^3 is:

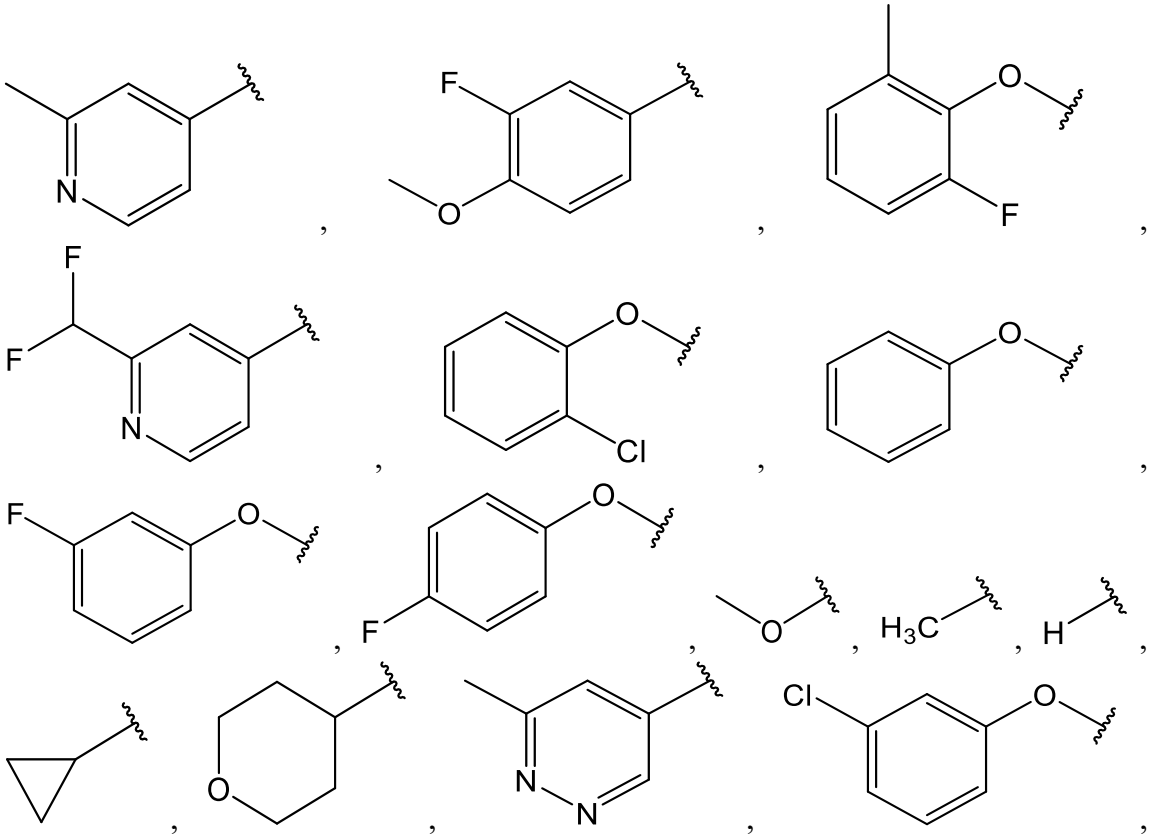


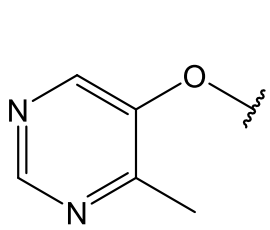
, wherein:

R^5 is H, a substituted or unsubstituted alkyl, or an alkoxy; and

R^6 is H, a halogen, or a substituted or unsubstituted alkyl.

12. The compound of claim 11, wherein R^5 is CH_3 and/or R^6 is a halo alkyl.
13. The compound of any one of claims 1-8, wherein R^3 is





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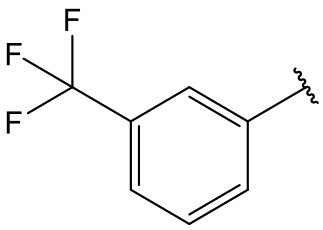

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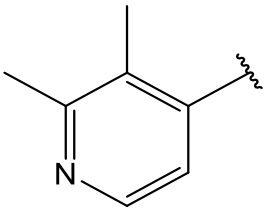

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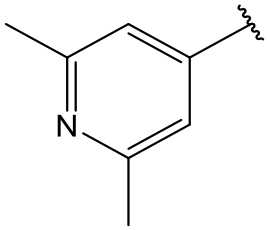

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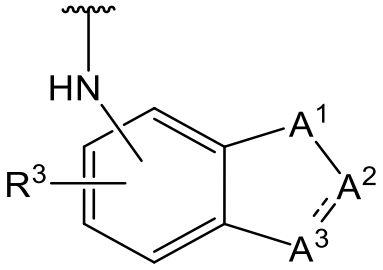
14. The compound of any one of claims 1 or 7-13, wherein


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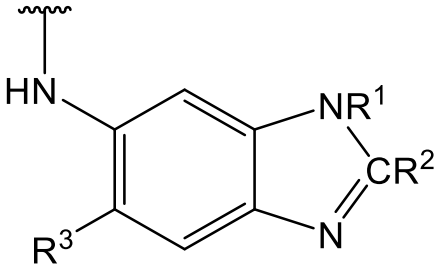

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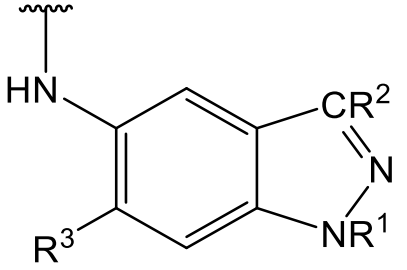

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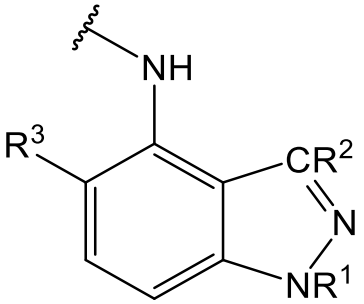

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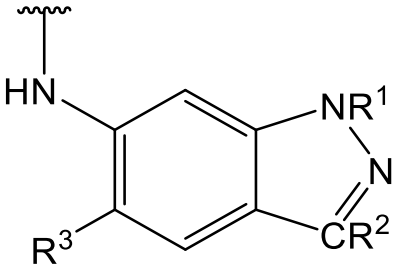

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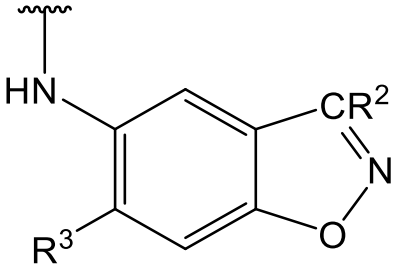

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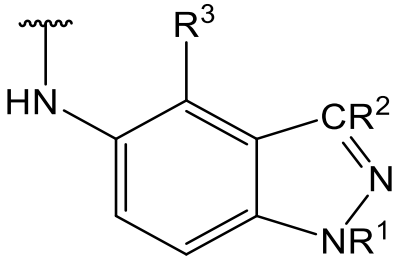

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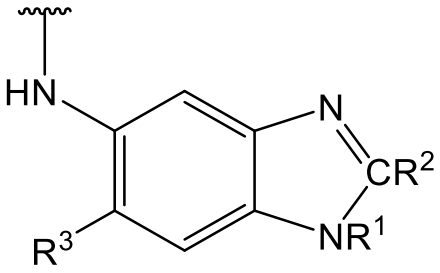

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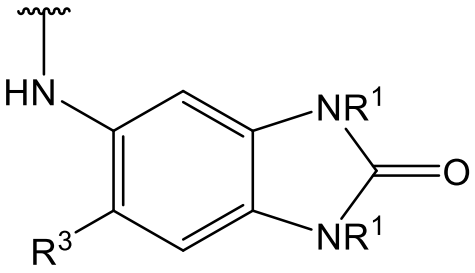

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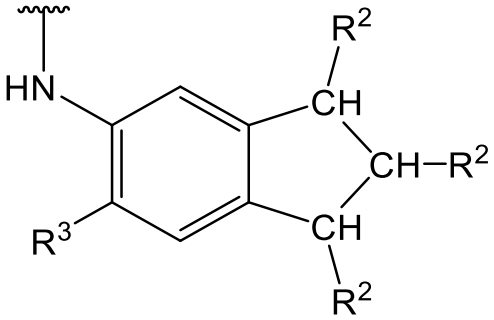

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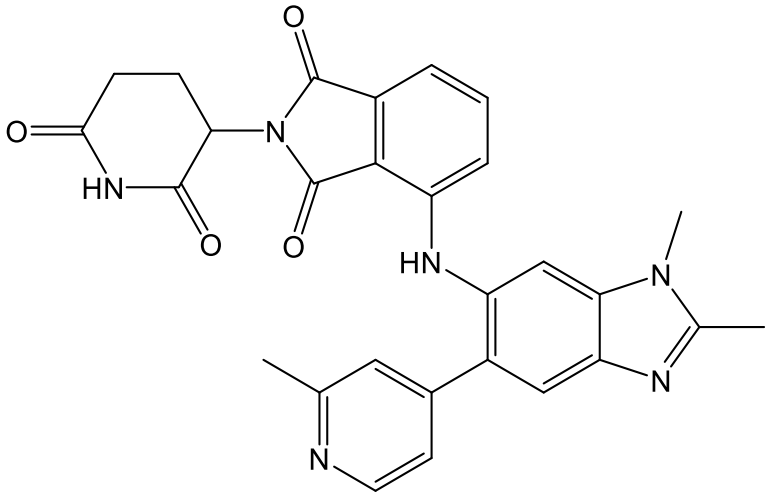
15. A compound of Formula (I) chosen from:



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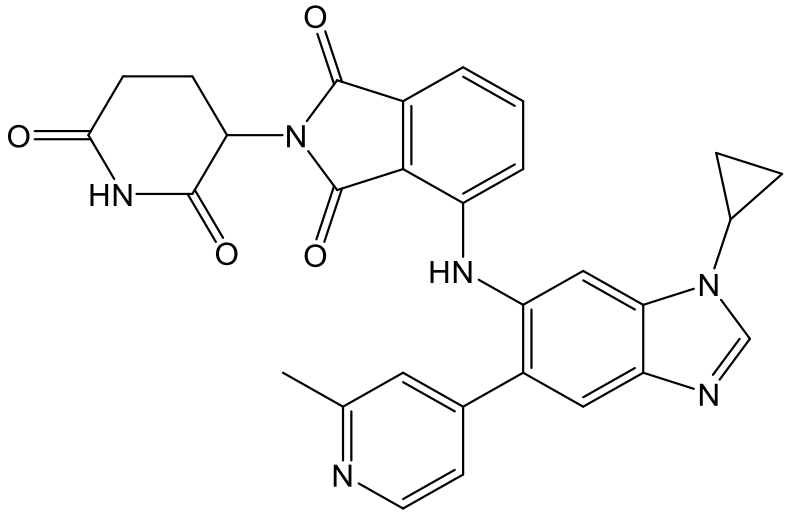

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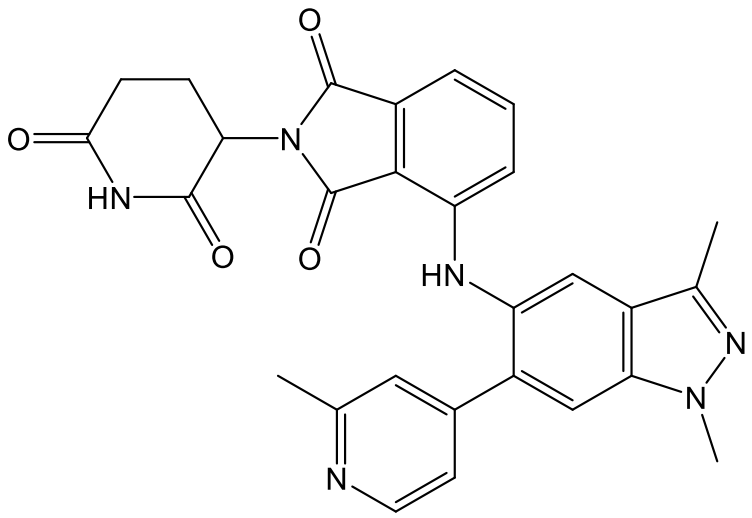
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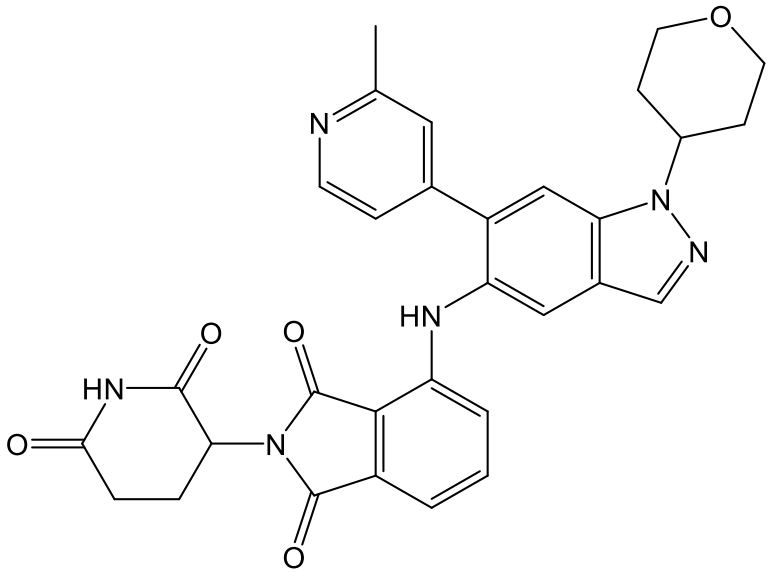
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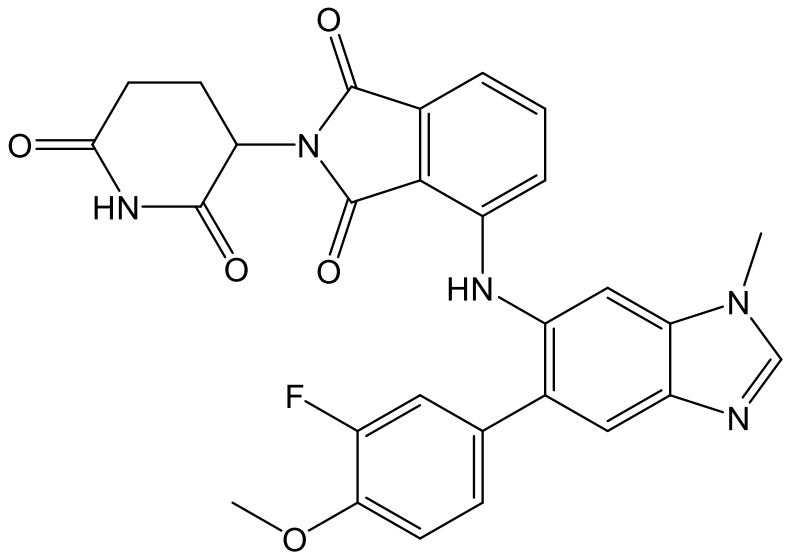
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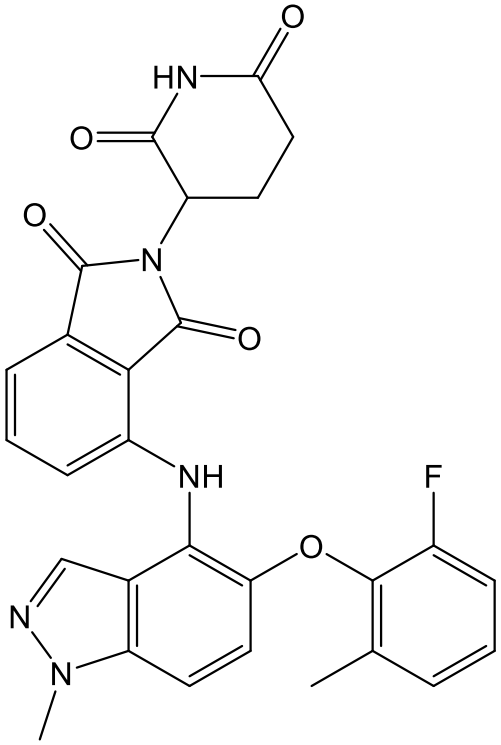
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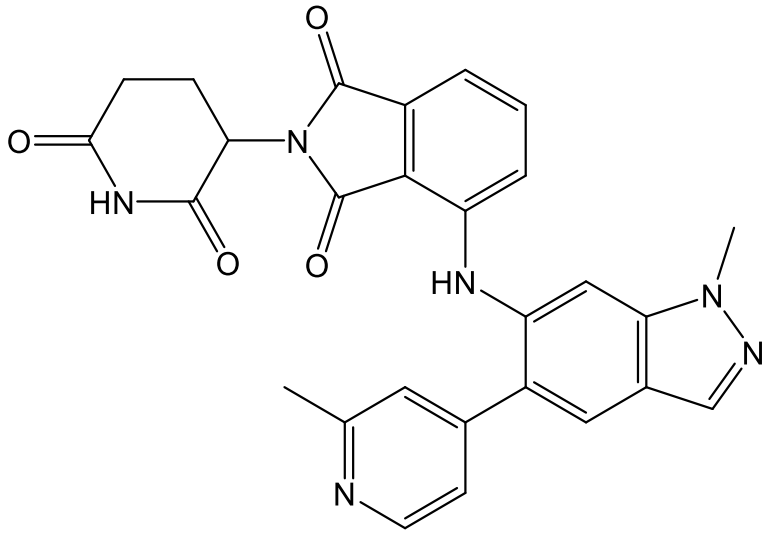
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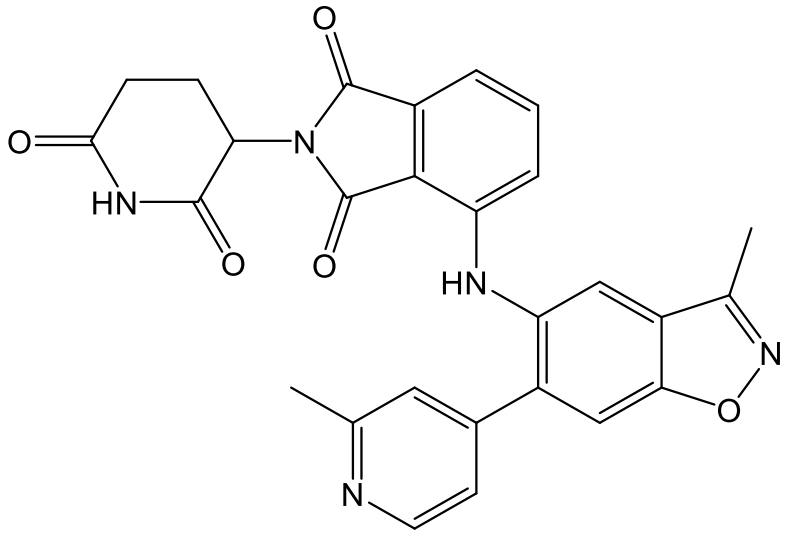
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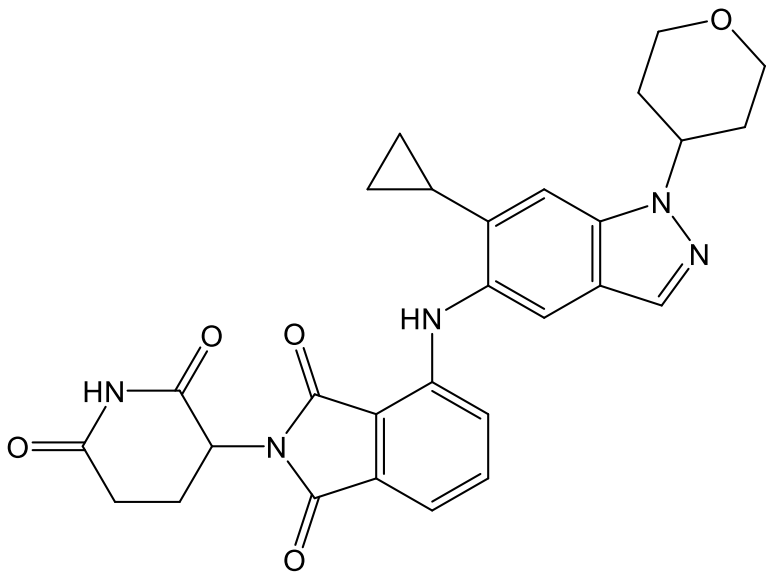
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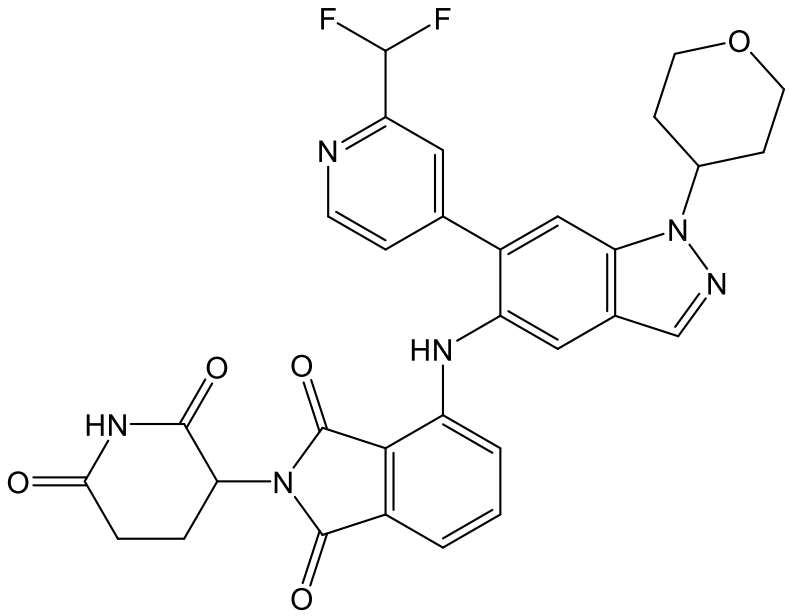
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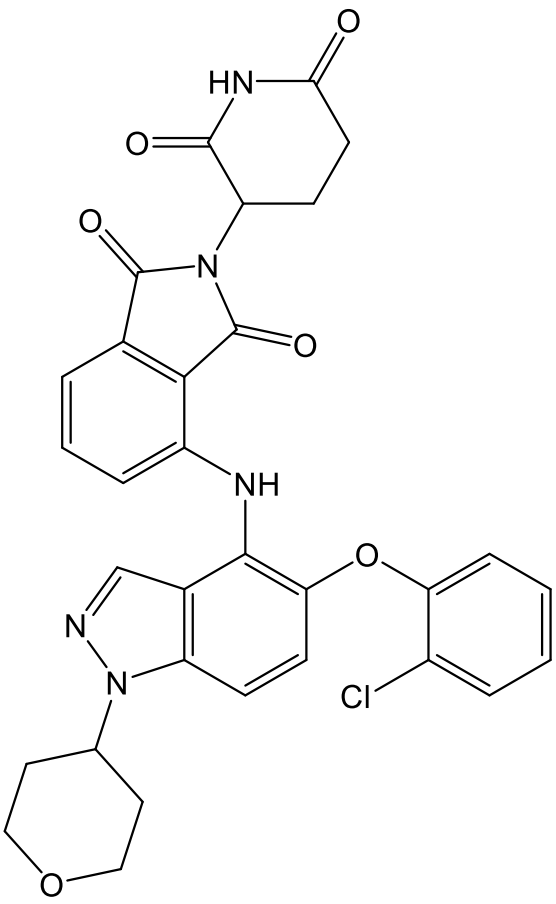
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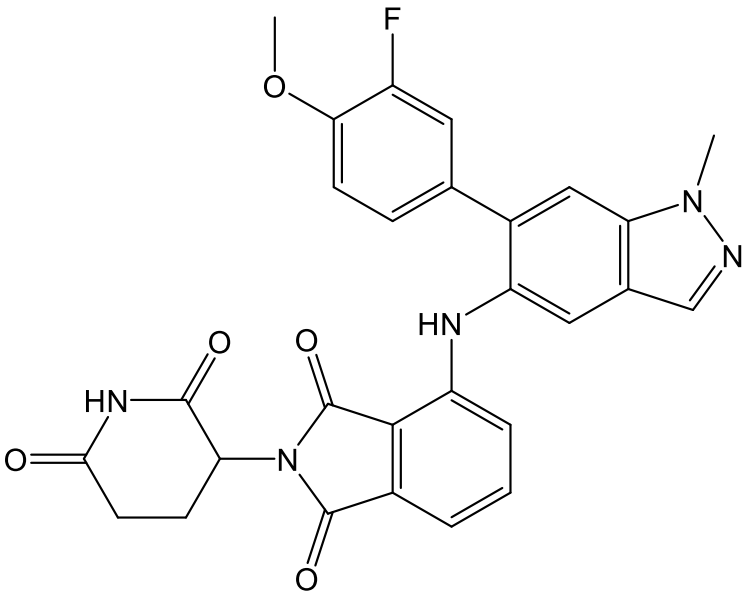
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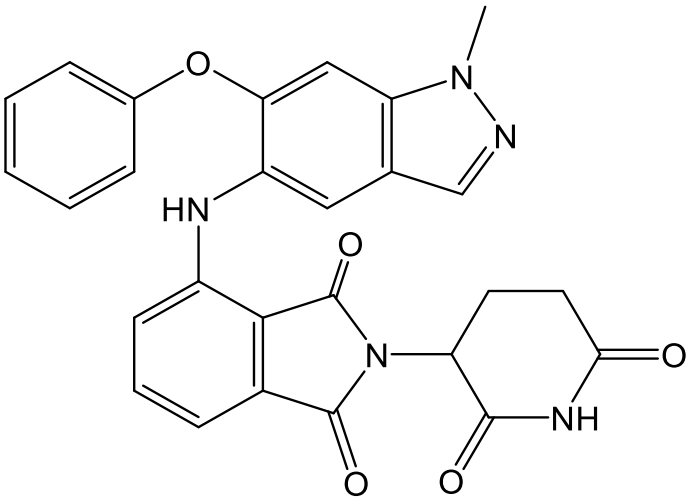
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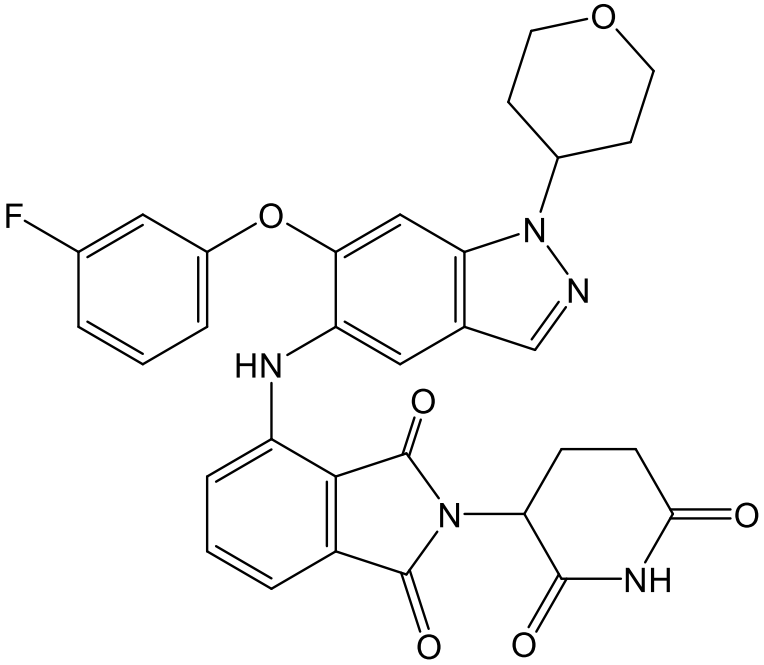
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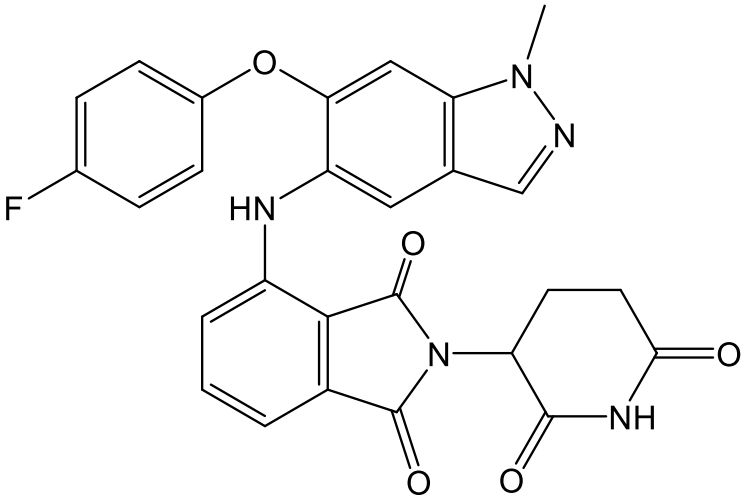
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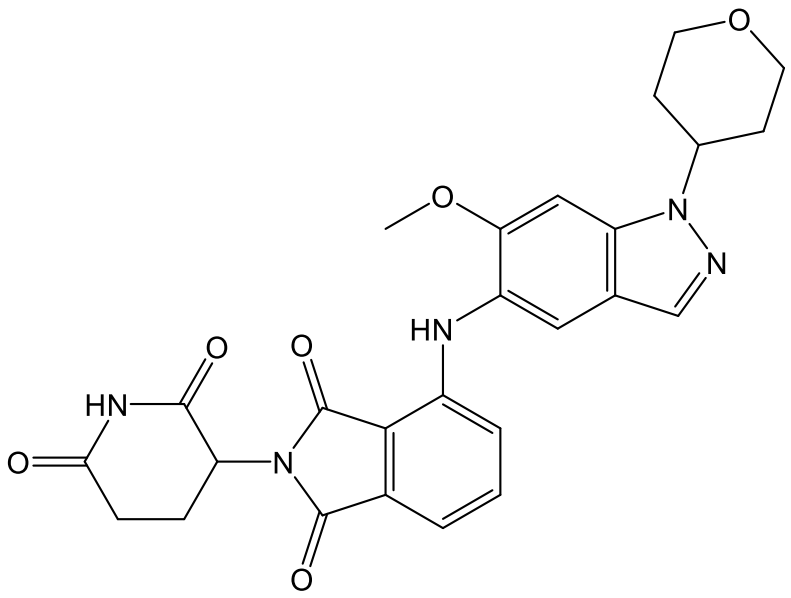
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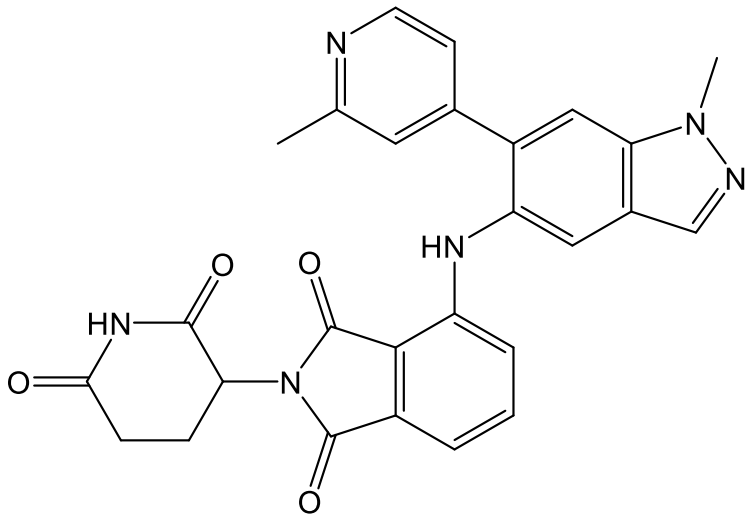
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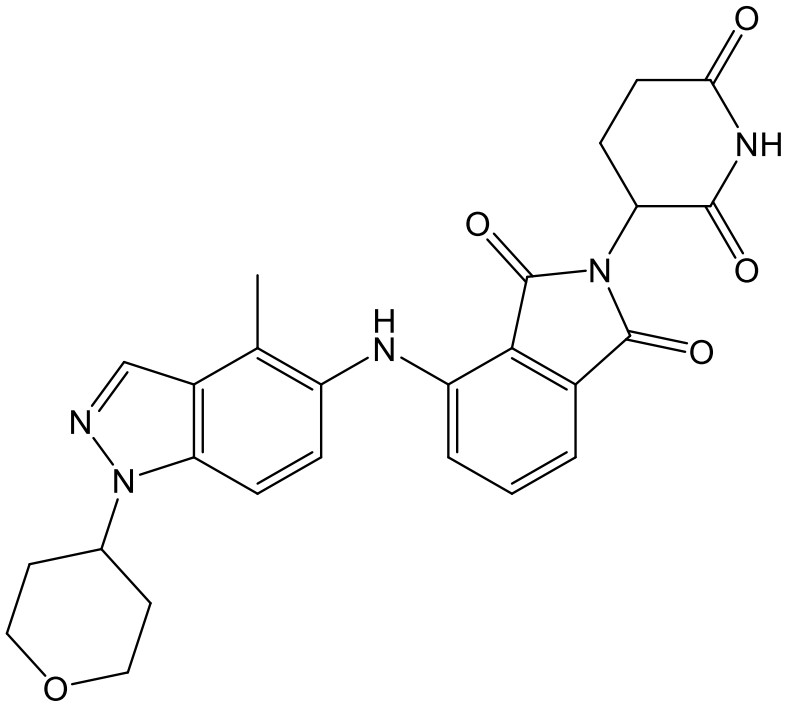
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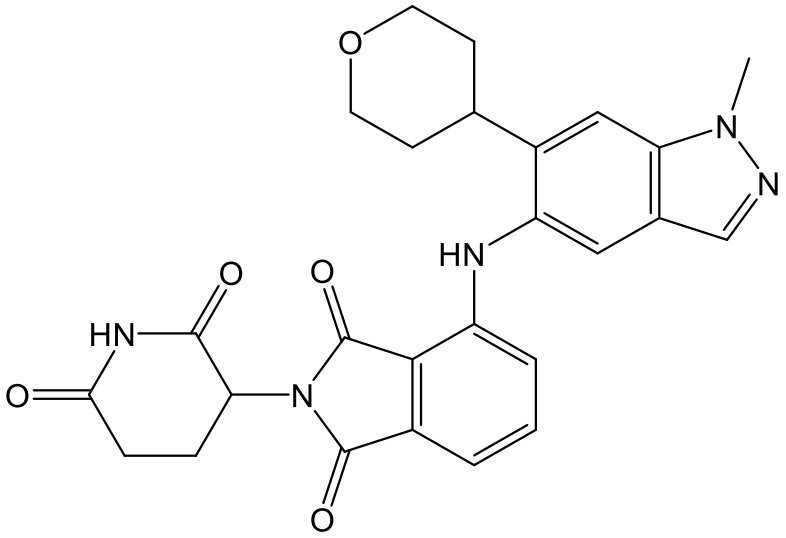
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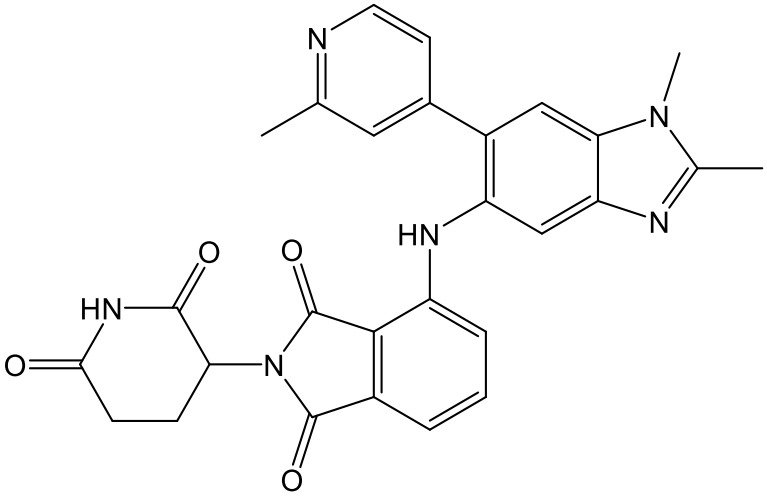
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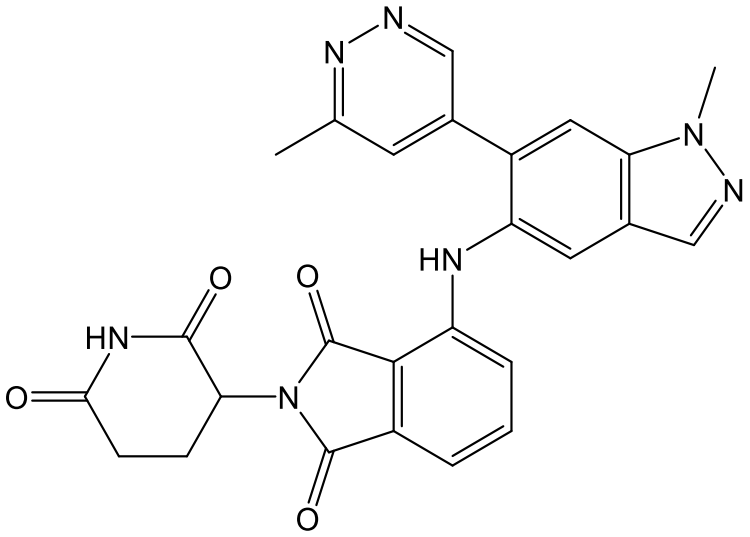
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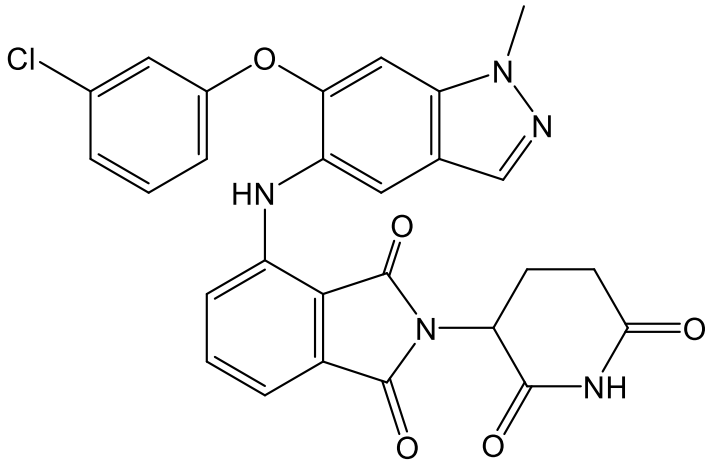
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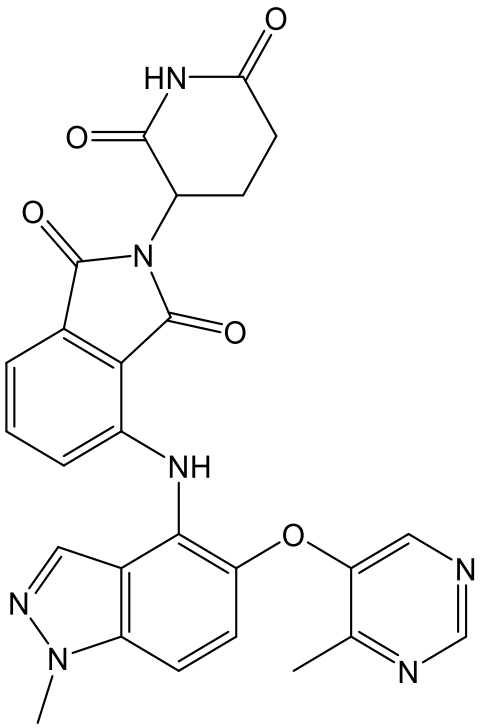
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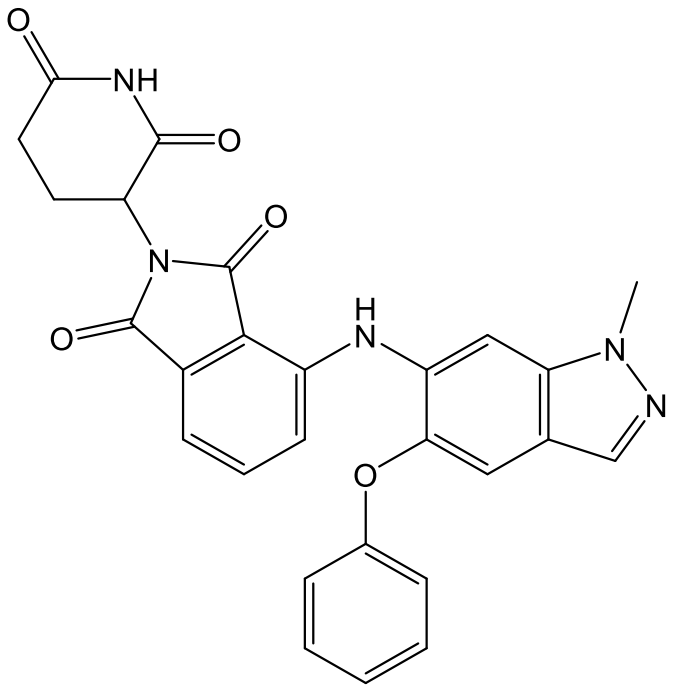
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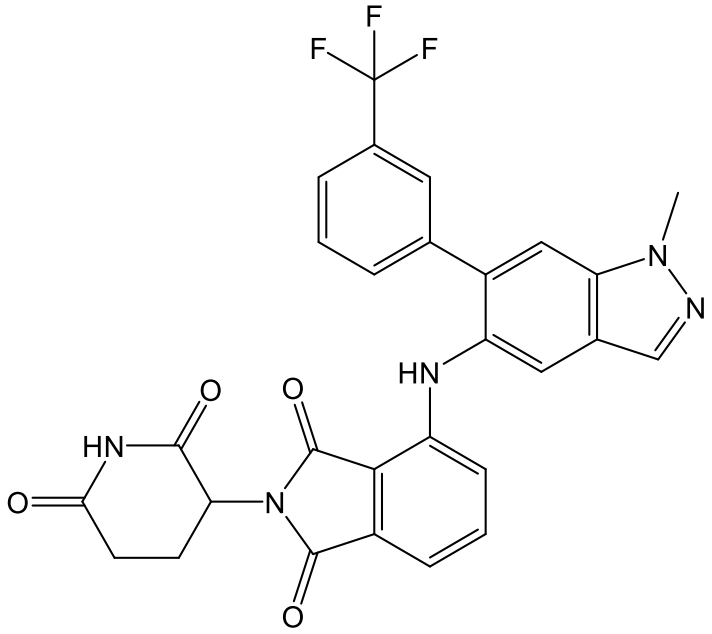
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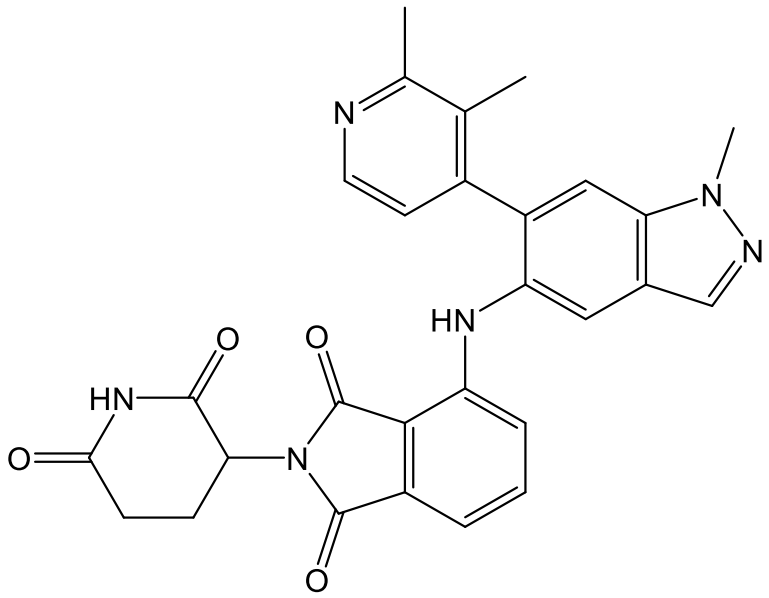
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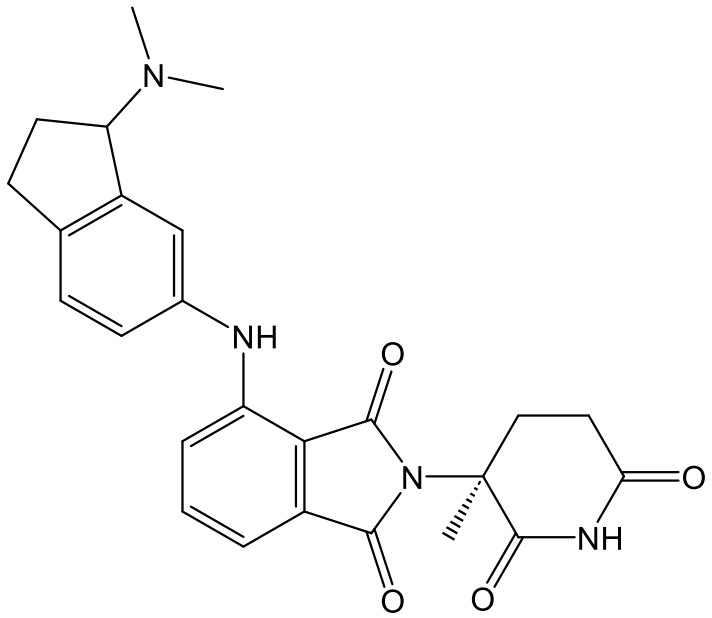
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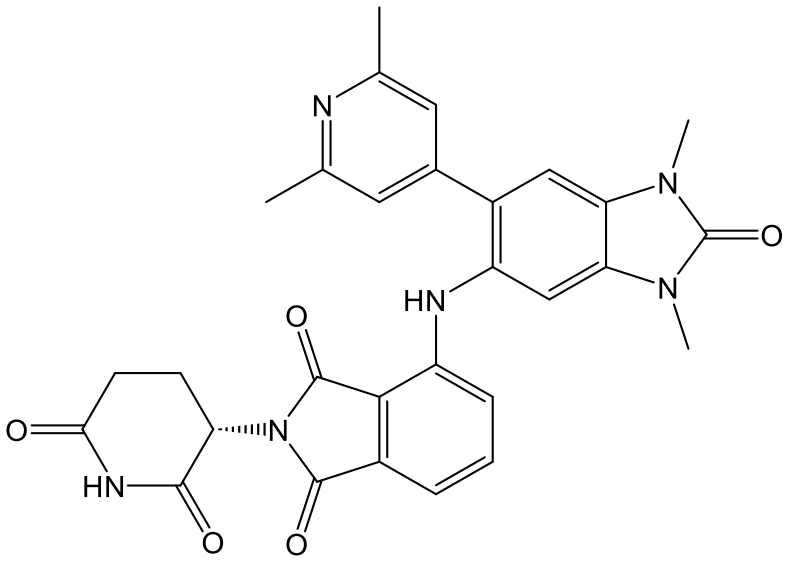
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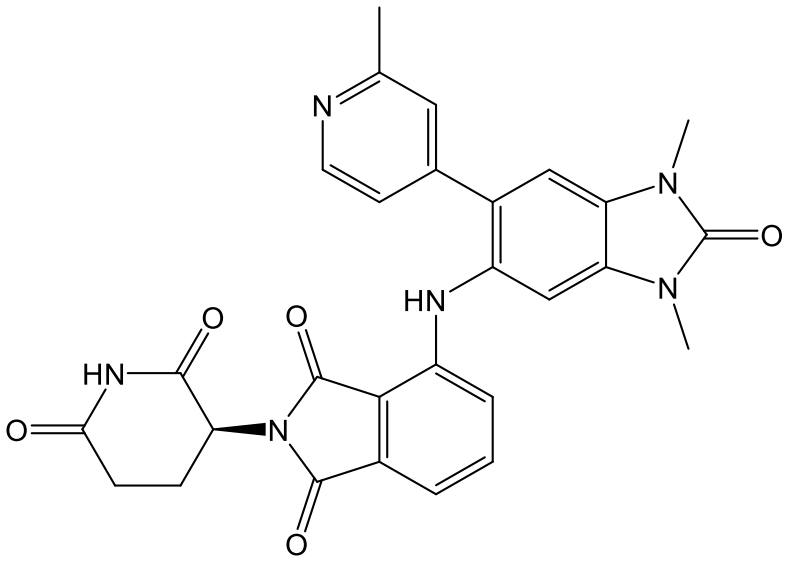
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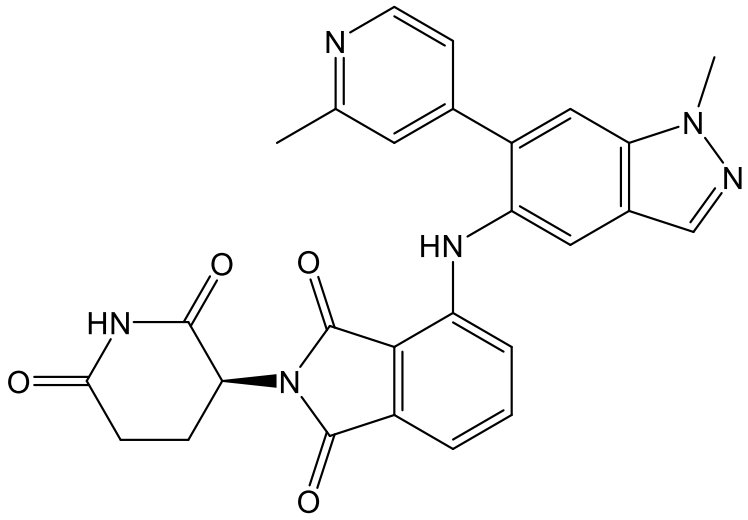
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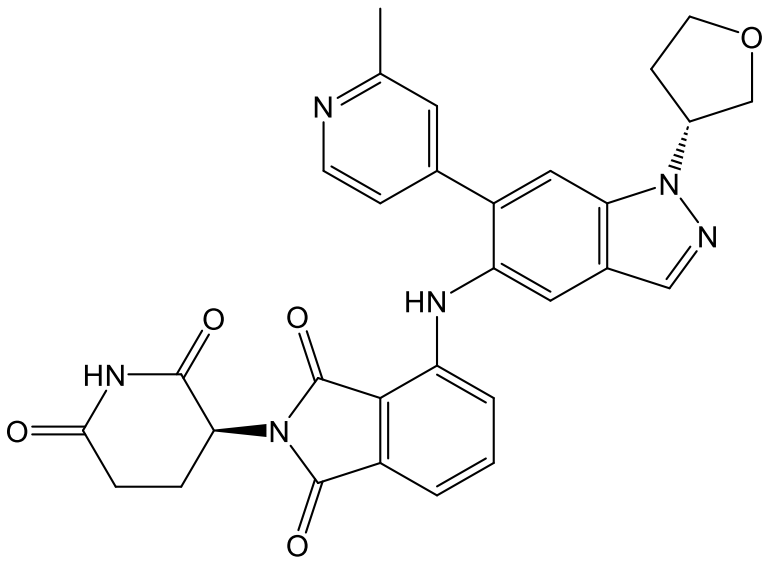
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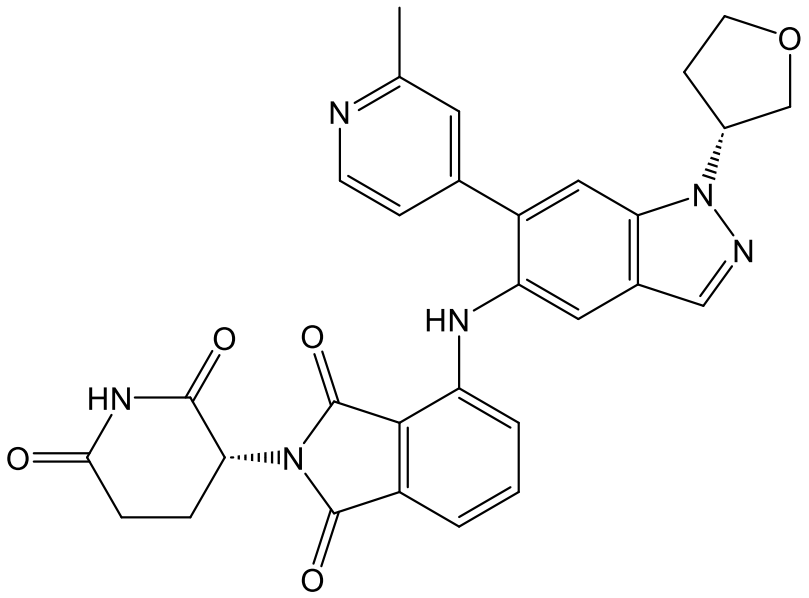

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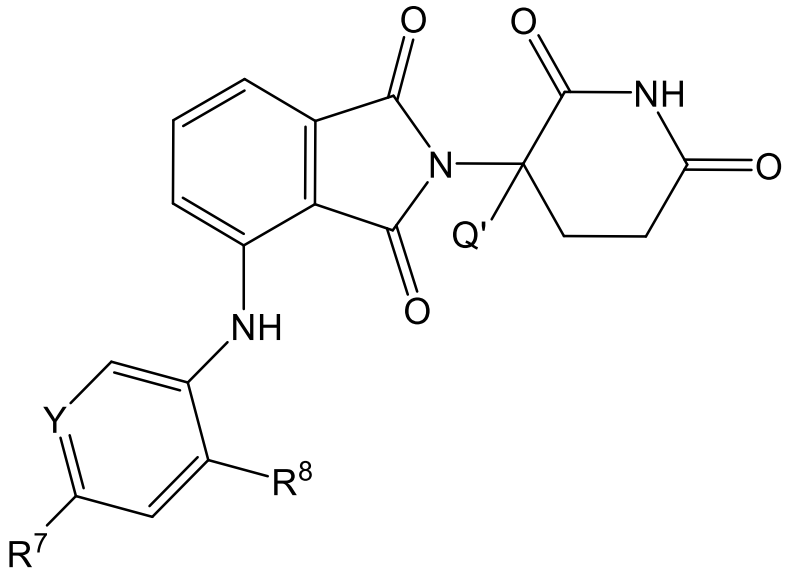
or a pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof.

16. A compound according to Formula (II):



(II)

and pharmaceutically acceptable salts, tautomers, isotopologues, and stereoisomers thereof,

wherein:

Q' is H or CH_3;

Y is CR^{13}, CH, or N;

R^7 is H, O-R^9, a substituted or unsubstituted aryl, or a substituted or unsubstituted alkyl,

R^8 is H, O-R^{10}, or a substituted or unsubstituted aryl;

R^9 is a substituted or unsubstituted alkyl, an aryl, $CH_2CH_2N(CH_3)_2$, or CH_2CH_2-R^{11};

R^{10} is a substituted or unsubstituted alkyl, or a substituted or unsubstituted aryl;

R^{11} is piperidinyl; and

R^{13} is a substituted or unsubstituted alkyl.

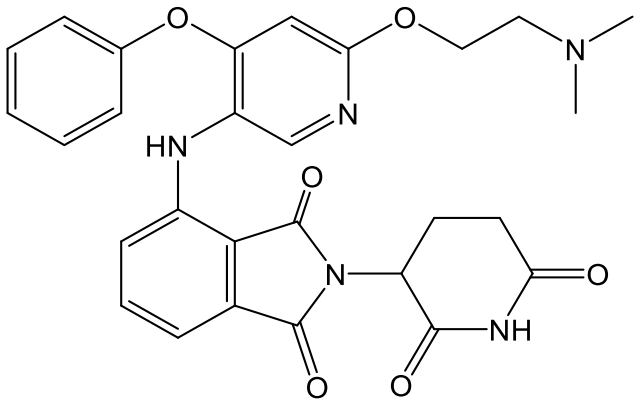
17. The compound of claim 16, wherein Y is CH or N.

18. The compound of claim 16 or 17, wherein R^7 is CH_3.

19. The compound of any one of claims 16-18, wherein R^{10} is CH_3 or a substituted or unsubstituted aryl.

20. The compound of any one of claims 16-19, wherein R^{10} is a substituted or unsubstituted phenyl.

21. A compound of Formula (II) chosen from:



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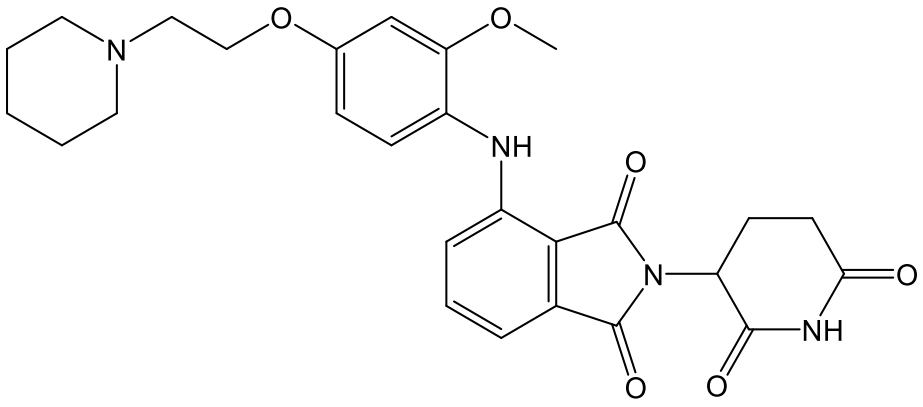

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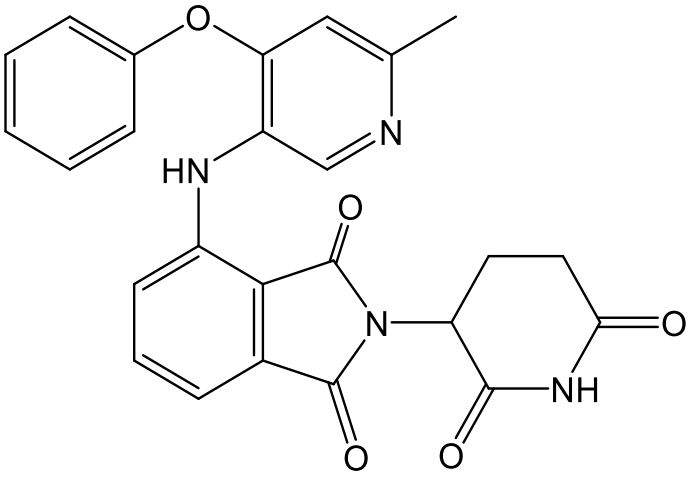

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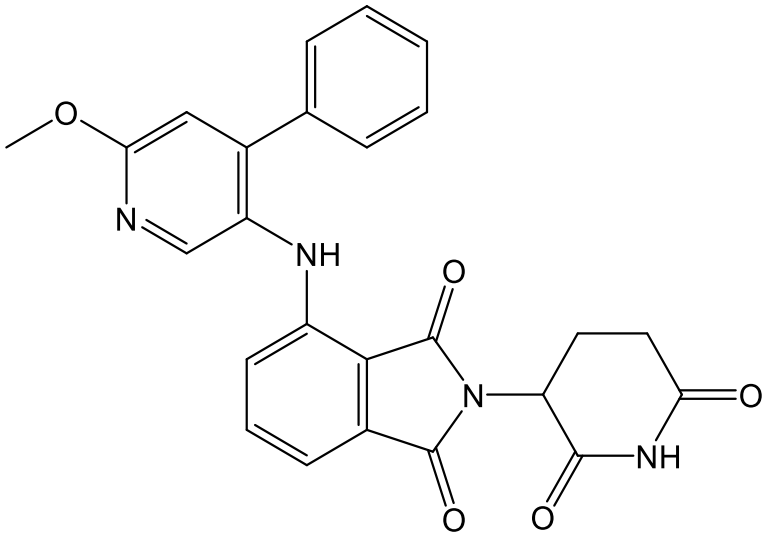

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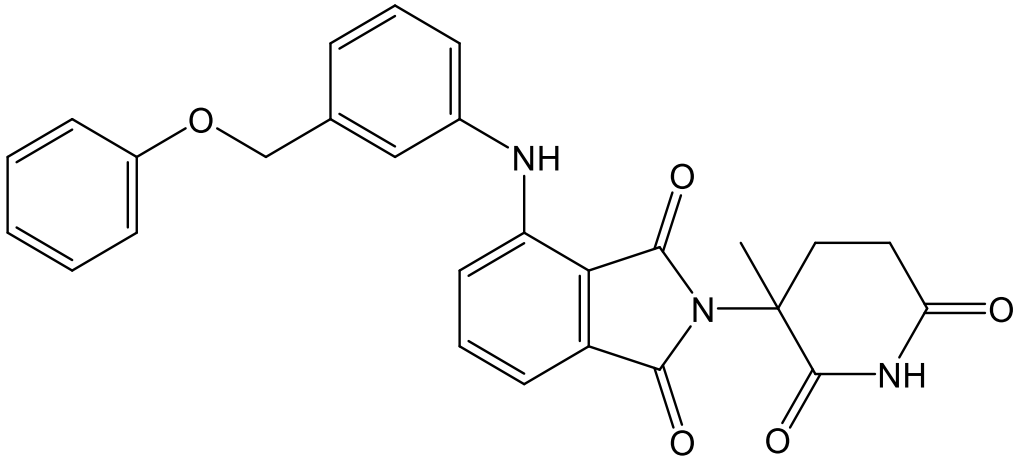

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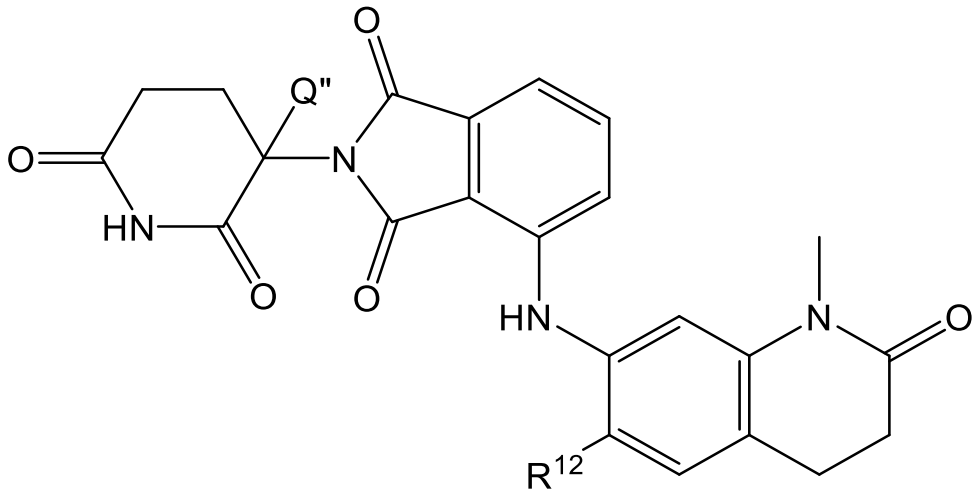
or a pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof.

22. A compound according to Formula (III):



(III)

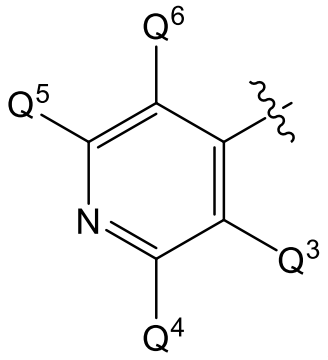
and pharmaceutically acceptable salts, tautomers, isotopologues, and stereoisomers thereof,

wherein:

Q" is H or CH_3.

R^{12} is a substituted or unsubstituted pyridyl, a substituted or unsubstituted alkyl, a substituted or unsubstituted heterocyclyl, or a substituted or unsubstituted C_3-C_6 cycloalkyl.

23. The compound of claim 22, wherein Q" is H.
24. The compound of claim 22, wherein Q" is CH_3.
25. The compound of any one of claims 22-24, wherein R^{12} is CH_3, cyclopropyl, substituted or unsubstituted thiazole, or a substituted or unsubstituted pyrazole.
26. The compound of any one of claims 22-24, wherein R^{12} is:



, wherein

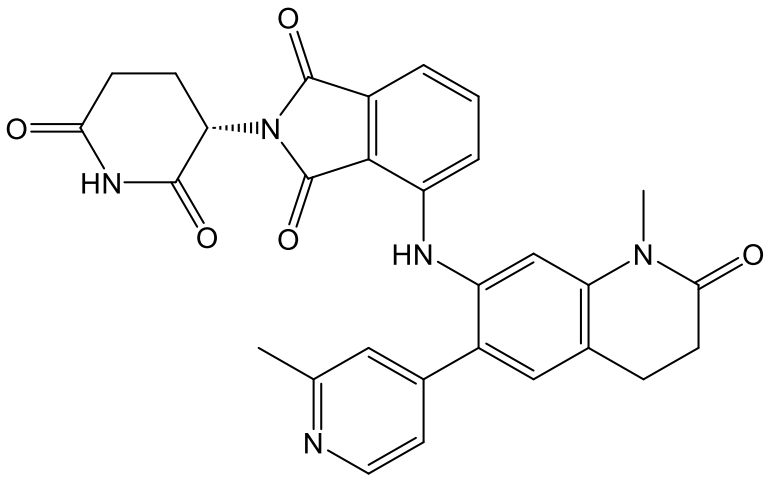
Q^3 is selected from H, Cl, or F;

Q^4 is selected from H, CH_3, or $CH(F)_2$;

Q^5 is selected from H, CH_3, or OCH_3; and

Q^6 is selected from H or F.

27. The compound of claim 26, wherein Q^3 is F.
28. The compound of claim 26 or 27, wherein Q^5 is OCH_3 or CH_3.
29. The compound of claim 26, wherein Q^3 is H, Q^4 is H, Q^5 is CH_3, and Q^6 is H;
30. Q^3 is H, Q^4 is $CH(F)_2$, Q^5 is H, and Q^6 is H; Q^3 is F, Q^4 is CH_3, Q^5 is H, and Q^6 is H; Q^3 is F, Q^4 is H, Q^5 is CH_3, and Q^6 is H; Q^3 is Cl, Q^4 is CH_3, Q^5 is H, and Q^6 is H; Q^3 is H, Q^4 is CH_3, Q^5 is CH_3, and Q^6 is H; Q^3 is H, Q^4 is CH_3, Q^5 is OCH_3, and Q^6 is H; Q^3 is F, Q^4 is H, Q^5 is OCH_3, and Q^6 is H; or Q^3 is H, Q^4 is H, Q^5 is OCH_3, and Q^6 is F.A compound of Formula (III) chosen from: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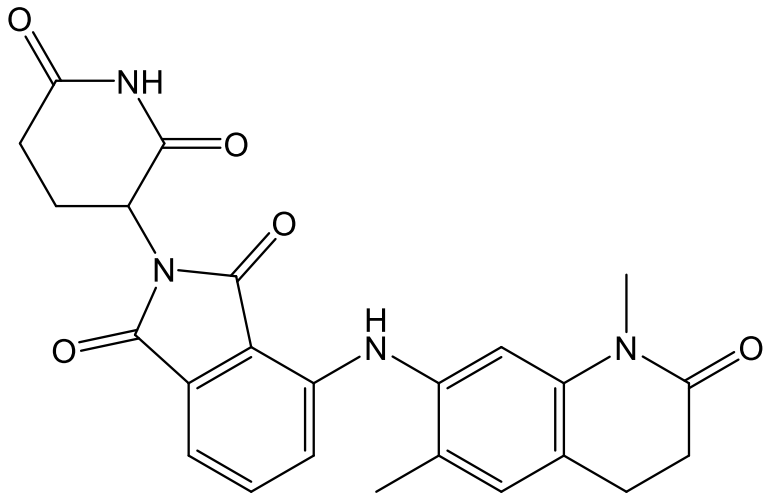
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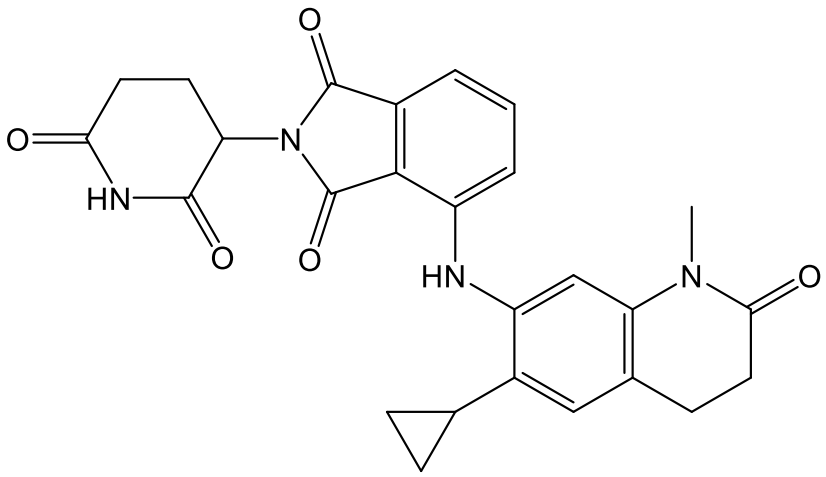
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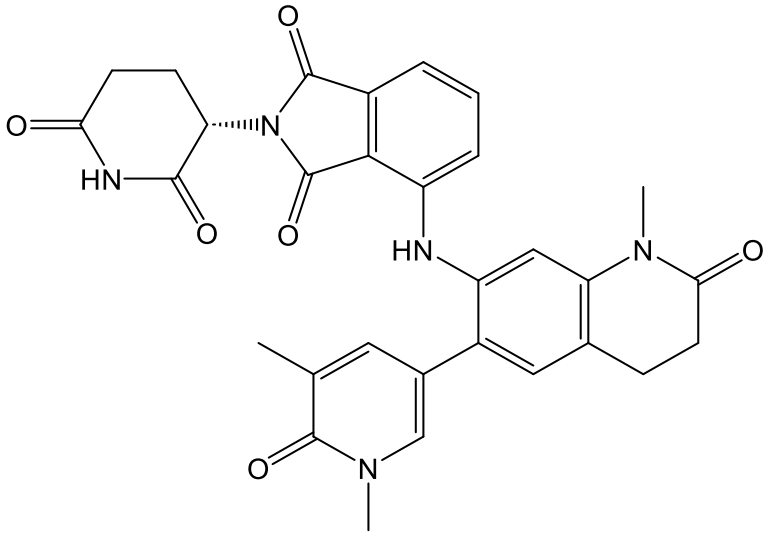
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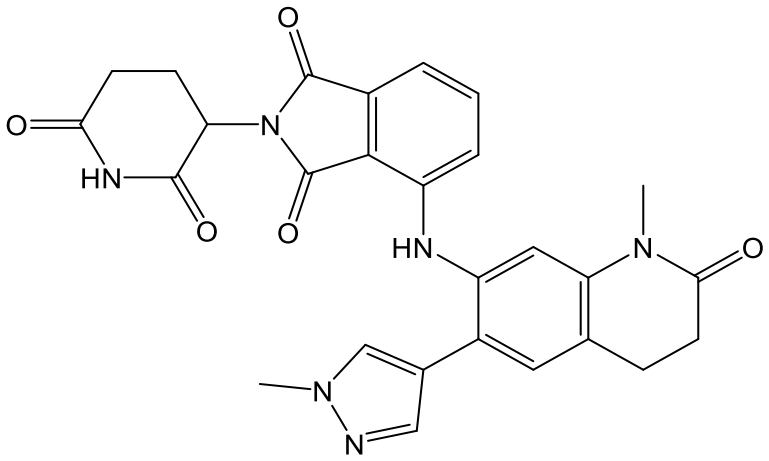
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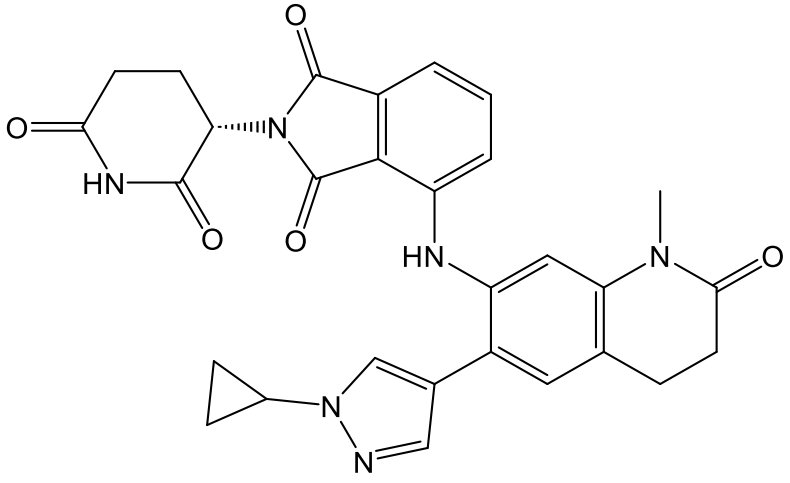
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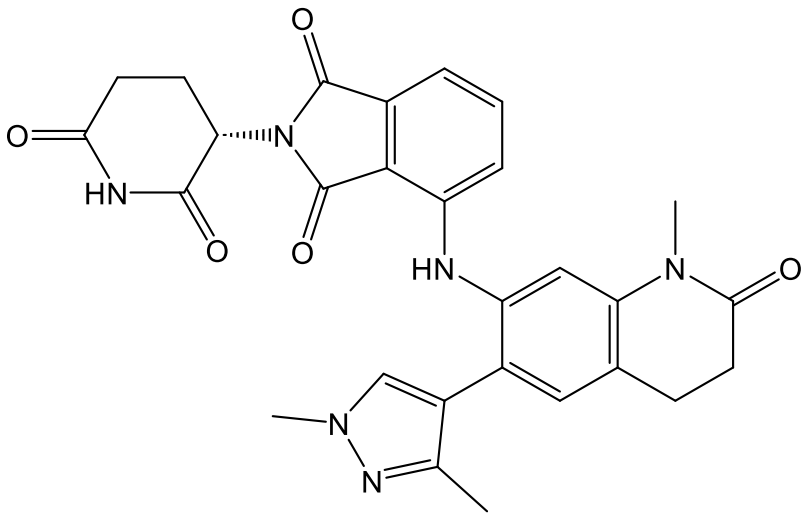
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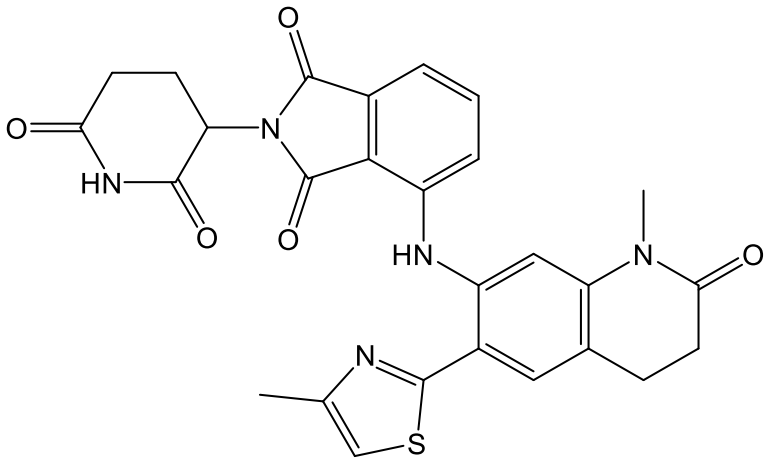
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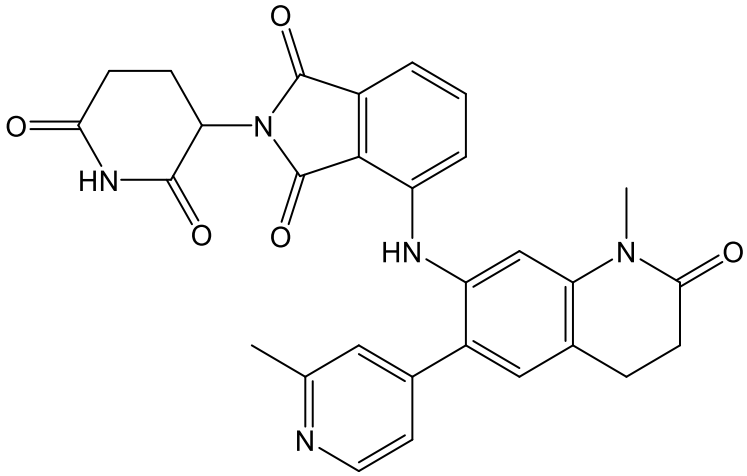
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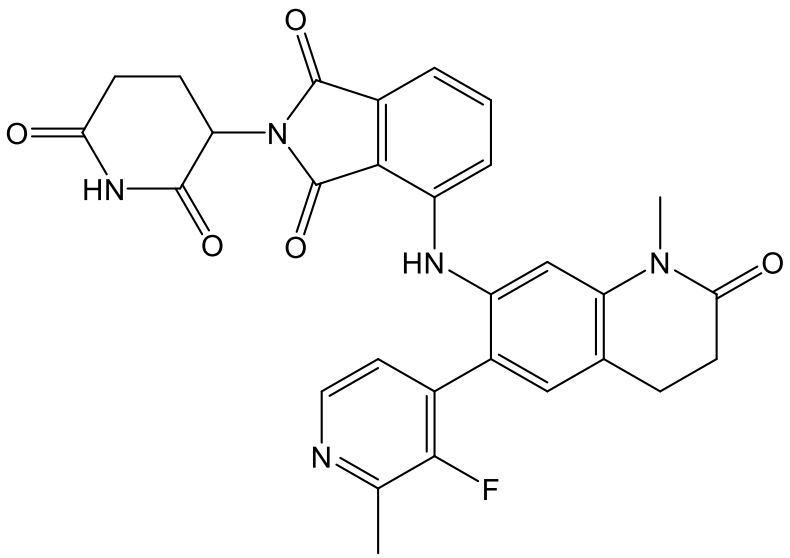
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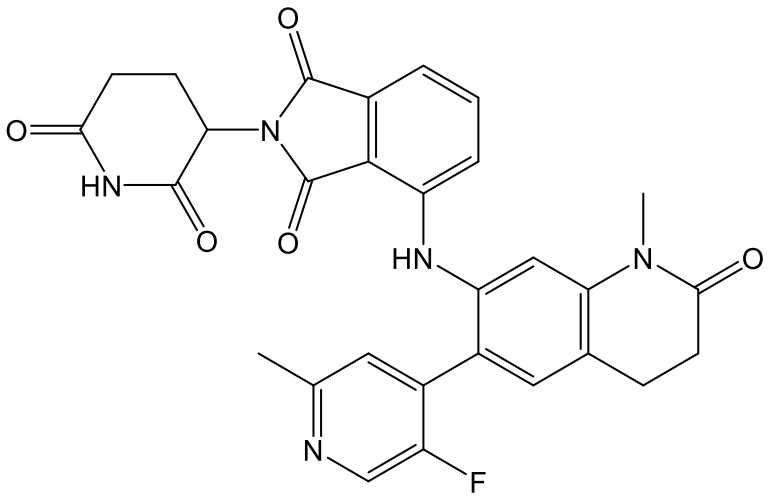
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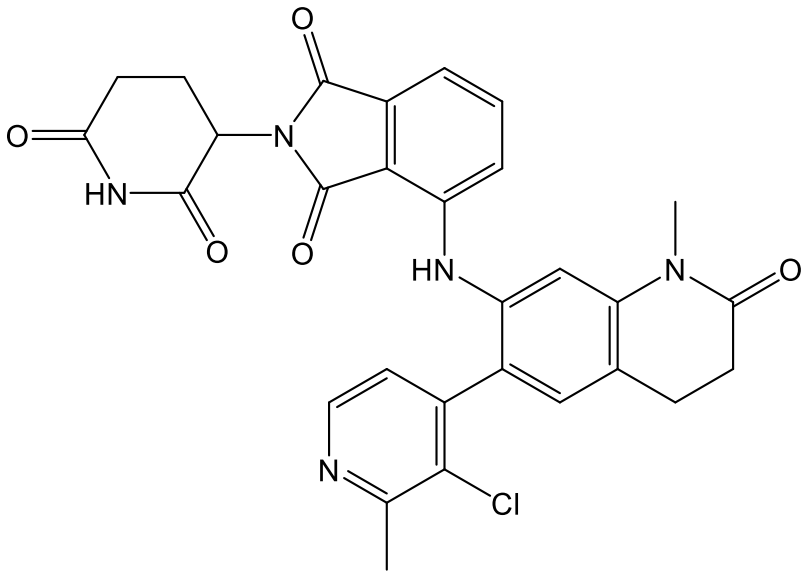
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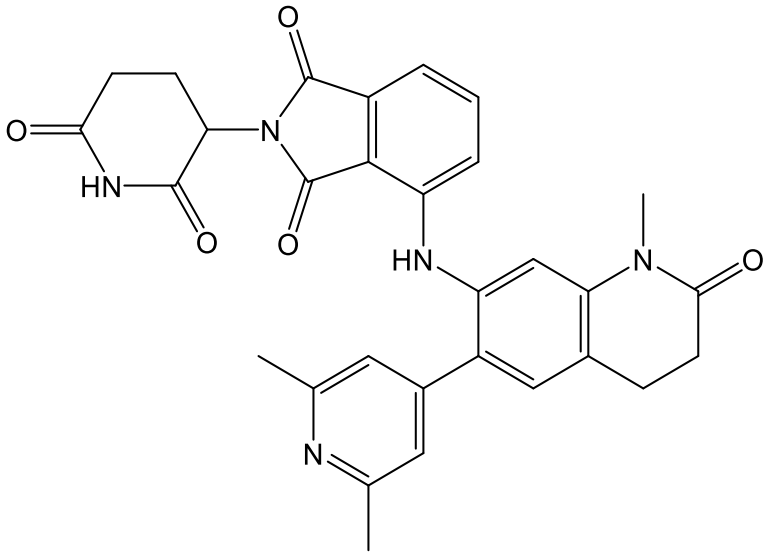
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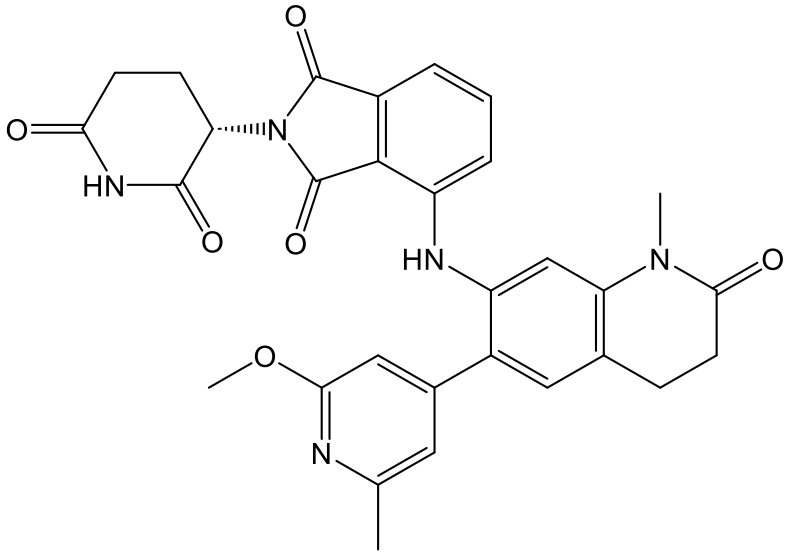
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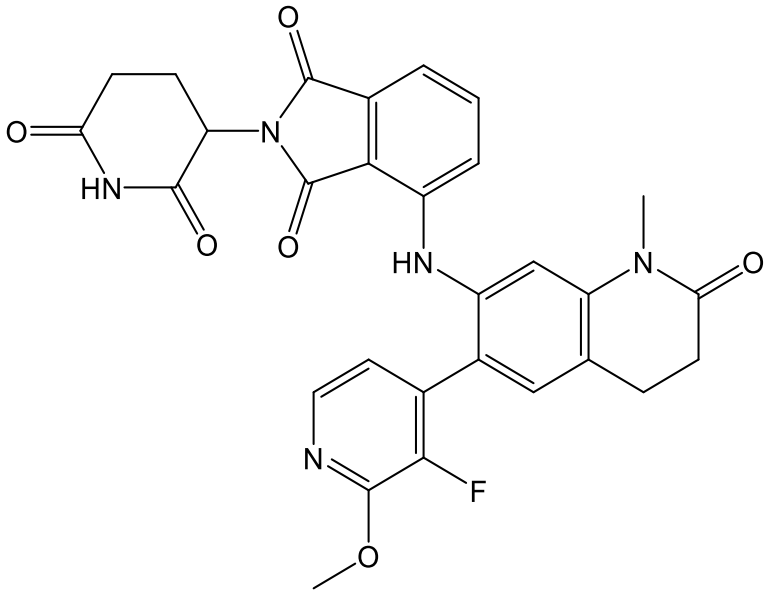
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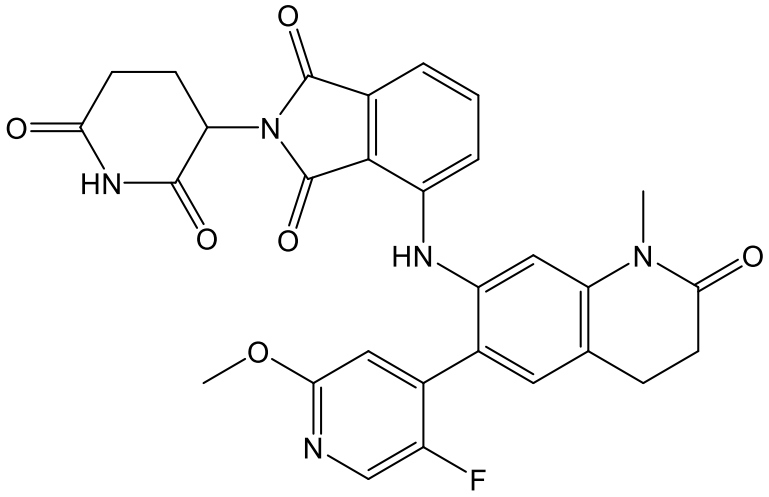

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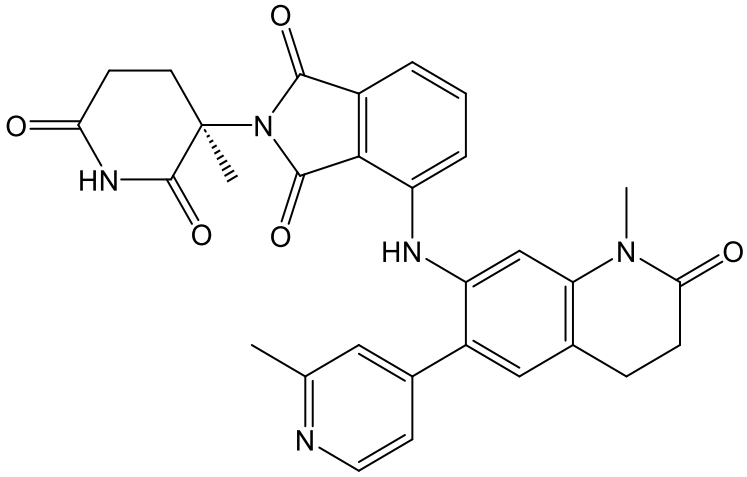

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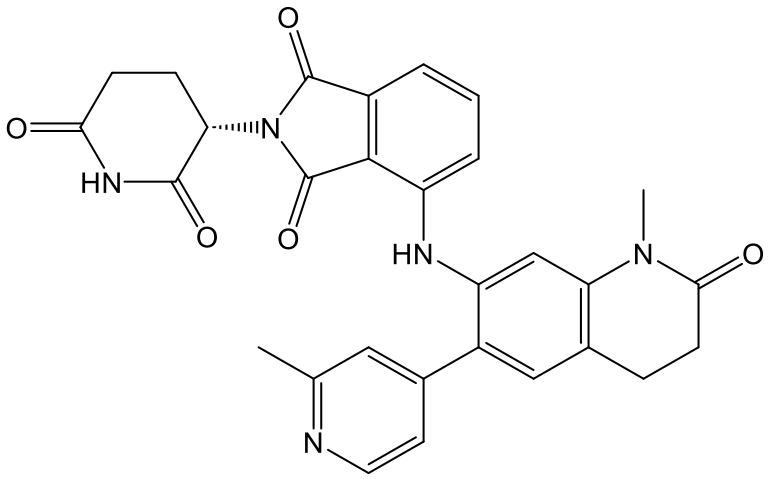
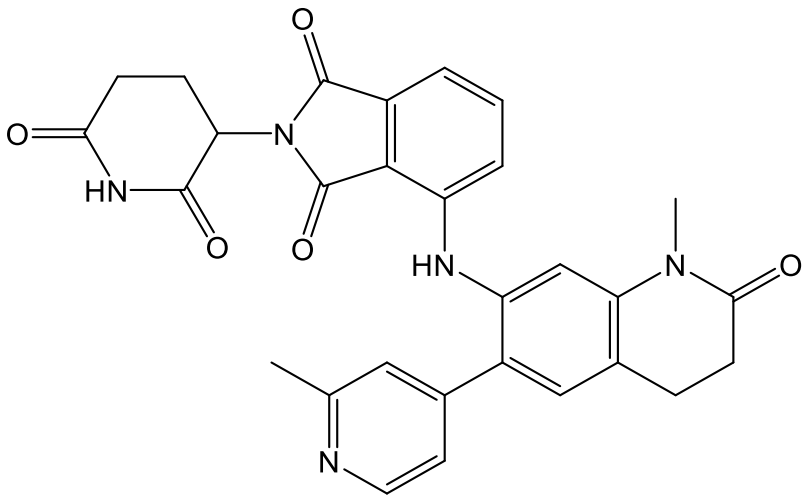
or a pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof.

31. The compound of claim 30, which is:



or a pharmaceutically acceptable salt thereof.

32. The compound of claim 30, which is:



or a pharmaceutically acceptable salt thereof.

33. A pharmaceutical composition comprising an effective amount of a compound of any one of claims 1-32, or a pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof, and a pharmaceutically acceptable carrier, excipient or vehicle.
34. The compound or pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof of any one of claims 1 to 32 or pharmaceutical composition of claim 33 for use in a method of inducing HbF expression in a cell, and/or decreasing ZBTB7A expression in a cell, and/or decreasing WIZ expression in a cell, wherein the compound or pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof or pharmaceutical composition is to be contacted with the cell.
35. Use of a compound or pharmaceutically acceptable salt, tautomer, isotopologue, or stereoisomer thereof of any one of claims 1 to 32 or pharmaceutical composition of claim 33 in the manufacture of a medicament for treating a hemoglobinopathy.
36. The use of claim 35, wherein the medicament is for use in combination with a second active agent and/or therapy.
37. The use of claim 36, wherein the second active agent and/or therapy is luspatercept, voxelotor, crizanlizumab-tmca, hydroxyurea, L-glutamine, etavopivat, mitapivat, osivelotor, inclacumab, a blood transfusion, a stem cell transplant, a bone marrow transplant, or a gene therapy.
38. The use of claim 36, wherein the second therapy is a gene therapy and the gene therapy is a CRISPR therapy.
39. The use of any one of claims –35-38, wherein the hemoglobinopathy is anemia, sickle cell disease, thalassemia, alpha-thalassemia, or beta-thalassemia.