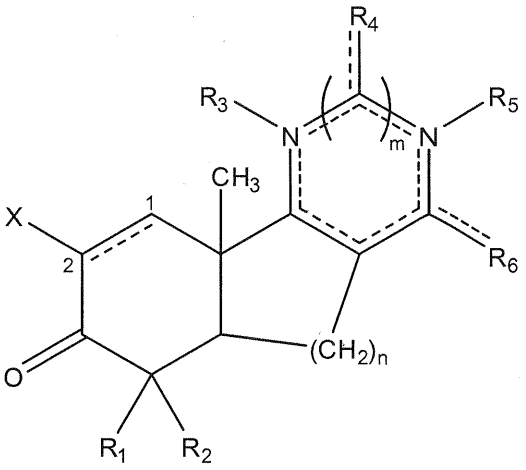
## CLAIMS

1. A compound of the formula:




(I),

wherein:

the atoms labeled 1 and 2 are connected either by a double bond or an epoxidized double bond;

n is 1 or 2;

m is 0 or 1;

X is $-CN$ or $-CF_3$;

$R_1$ and $R_2$ are each independently hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$;

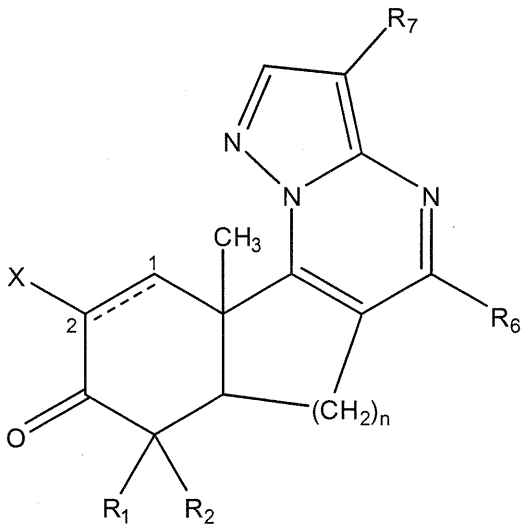
$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or $R_3$ is taken together with $R_4$ as provided below; provided that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

$R_4$ is hydrogen or oxo; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or $R_4$ is taken together with either $R_3$ or $R_5$ as provided below;

$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or $R_5$ is taken together with $R_4$ as provided below; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, cyano, or oxo; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

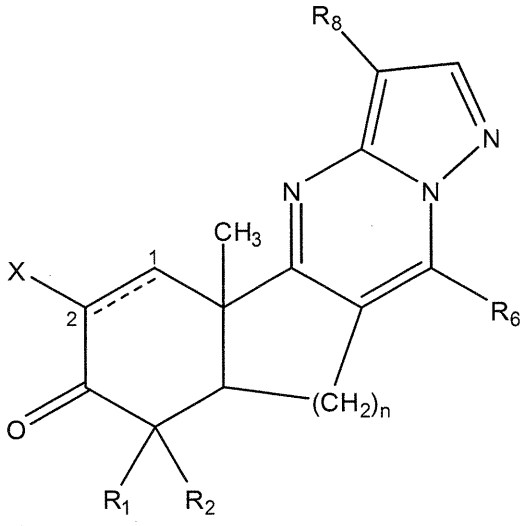
provided that when $R_3$ and $R_4$ are taken together, the compound is further defined by formula Ia:




(Ia)

wherein $R_7$ is hydrogen or halo; or $aryl_{(C\leq12)}$; or

provided that when $R_4$ and $R_5$ are taken together, the compound is further defined by formula Ib:

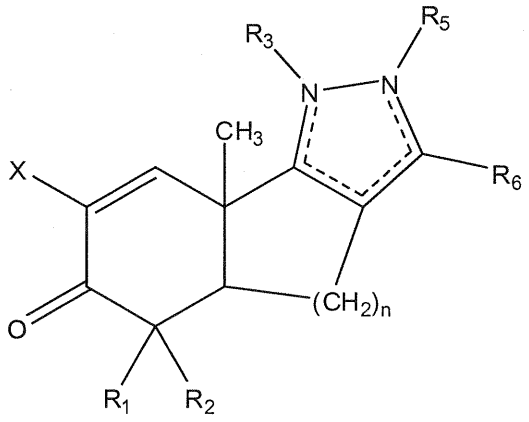



(Ib)

wherein $R_8$ is hydrogen or halo;

or a pharmaceutically acceptable salt or tautomer thereof.

2. The compound of claim 1, further defined by the formula:



(II),

wherein:

n is 1 or 2;

X is $-CN$ or $-CF_3$;

$R_1$ and $R_2$ are each independently hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$;

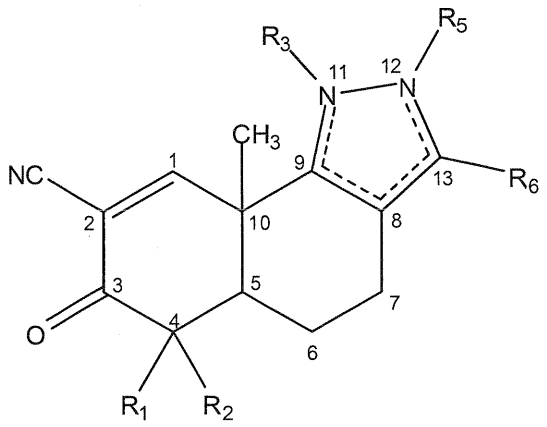
$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; provided that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt or tautomer thereof.

3. The compound of claim 1, further defined by the formula:




(III),

wherein:

$R_1$ and $R_2$ are each independently hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$;

$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; provided

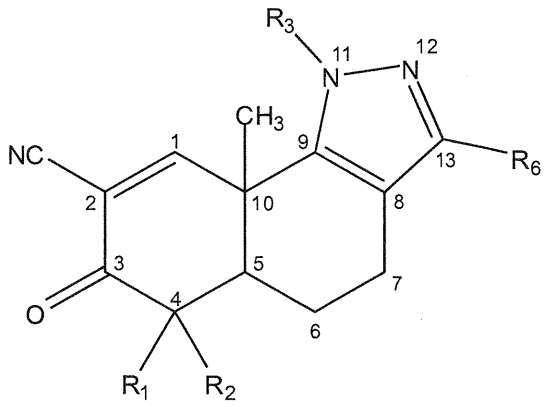
that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt or tautomer thereof.

4. The compound of claim 3, further defined by the formula:




(IV),

wherein:

$R_1$ and $R_2$ are each independently hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$,

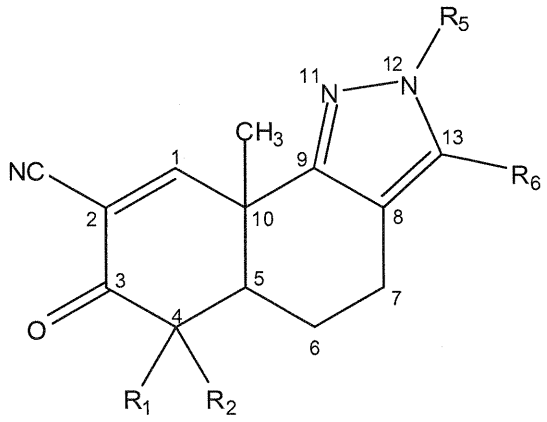
$-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

$R_3$ is hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt or tautomer thereof.

5. The compound of claim 3, further defined by the formula:




(V),

wherein:

$R_1$ and $R_2$ are each independently hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; or

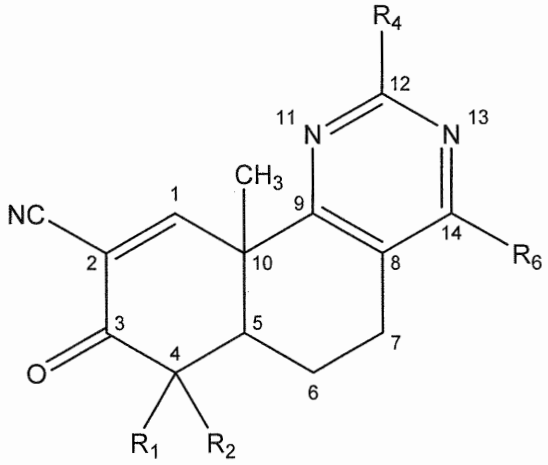
$R_1$ and $R_2$ are taken together and are alkanediyl$_{(C\leq12)}$;

$R_5$ is hydrogen; or alkyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, acyl$_{(C\leq12)}$ or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt or tautomer thereof.

6. The compound of claim 1, further defined as:




(VI),

wherein:

$R_1$ and $R_2$ are each independently hydrogen; or alkyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

$R_4$ is hydrogen; or $alkyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt or tautomer thereof.

7. The compound of claim 1, wherein the atoms labeled 1 and 2 are connected by a double bond.

8. The compound of claim 1, wherein the atoms labeled 1 and 2 are connected by an epoxidized double bond.

9. The compound according to one of claims 1, 2, 7 and 8, wherein n is 1.

10. The compound according to one of claims 1, 2, 7 and 8, wherein n is 2.

11. The compound according to one of claims 1 and 7-10, wherein m is 0.

12. The compound according to one of claims 1, and 7-10, wherein m is 1.

13. The compound according to one of claims 1, 2 and 7-12, wherein X is $-CN$.

14. The compound according to one of claims 1, 2 and 7-12, wherein X is $-CF_3$.

15. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $alkyl_{(C\leq8)}$ or substituted $alkyl_{(C\leq8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$,

$-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

16. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $alkyl_{(C\leq 8)}$.

17. The compound of claim 16, wherein $R_1$ or $R_2$ is methyl.

18. The compound of claim 17, wherein $R_1$ and $R_2$ are each methyl.

19. The compound of claim 17, wherein $R_1$ is methyl and $R_2$ is hydrogen.

20. The compound of claim 16, wherein $R_1$ or $R_2$ is ethyl.

21. The compound of claim 20, wherein $R_1$ is ethyl and $R_2$ is hydrogen.

22. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is hydrogen.

23. The compound of claim 22, wherein $R_1$ and $R_2$ are each hydrogen.

24. The compound according to one of claims 1-3, 5, 7-14, wherein $R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq 8)}$.

25. The compound of claim 24, wherein $R_1$ and $R_2$ are taken together and are 1,4-butanediyl.

26. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $aryl_{(C\leq 8)}$.

27. The compound of claim 26, wherein $R_1$ or $R_2$ is phenyl.

28. The compound of claim 27, wherein $R_1$ is phenyl and $R_2$ is hydrogen.

29. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $aralkyl_{(C\leq 8)}$.

30. The compound of claim 29, wherein $R_1$ or $R_2$ is benzyl.

31. The compound of claim 30, wherein $R_1$ is benzyl and $R_2$ is hydrogen.

32. The compound of claim 30, wherein $R_1$ and $R_2$ are each benzyl.

33. The compound according to one of claims 1-3 and 7-32, wherein $R_3$ is absent.

34. The compound according to one of claims 1-4 and 7-32, wherein $R_3$ is hydrogen.

35. The compound according to one of claims 1-4 and 7-32, wherein $R_3$ is $alkyl_{(C\leq 8)}$, $aryl_{(C\leq 8)}$, or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

36. The compound of claim 35, wherein $R_3$ is $alkyl_{(C\leq 4)}$ or substituted $alkyl_{(C\leq 4)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

37. The compound of claim 36, wherein $R_3$ is $alkyl_{(C\leq 4)}$.

38. The compound of claim 36, wherein $R_3$ is methyl.

39. The compound of claim 35, wherein $R_3$ is $aryl_{(C\leq 8)}$ or substituted $aryl_{(C\leq 8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

40. The compound of claim 39, wherein $R_3$ is $aryl_{(C\leq 8)}$.

41. The compound of claim 40, wherein $R_3$ is phenyl.

42. The compound according to one of claims 1 and 6-41, wherein $R_4$ is hydrogen.

43. The compound according to one of claims 1 and 7-41, wherein $R_4$ is oxo.

44. The compound according to one of claims 1 and 6-41, wherein $R_4$ is $alkyl_{(C\leq 8)}$, $aryl_{(C\leq 8)}$, $acyl_{(C\leq 8)}$, $alkoxy_{(C\leq 8)}$ or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

45. The compound of claim 44, wherein $R_4$ is $alkyl_{(C\leq 6)}$ or substituted $alkyl_{(C\leq 6)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

46. The compound of claim 45, wherein $R_4$ is $alkyl_{(C\leq6)}$.

47. The compound of claim 46, wherein $R_4$ is methyl, isopropyl, *t*-butyl, or cyclopropyl.

48. The compound of claim 45, wherein $R_4$ is $haloalkyl_{(C\leq6)}$.

49. The compound of claim 48, wherein $R_4$ is trifluoromethyl.

50. The compound of claim 44, wherein $R_4$ is $alkoxy_{(C\leq6)}$.

51. The compound of claim 50, wherein $R_4$ is methoxy or ethoxy.

52. The compound of claim 44, wherein $R_4$ is $aryl_{(C\leq8)}$ or substituted $aryl_{(C\leq8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

53. The compound of claim 52, wherein $R_4$ is phenyl, chlorophenyl, methylphenyl, or methoxyphenyl.

54. The compound according to one of claims 1 and 6-41, wherein $R_4$ is $heteroaryl_{(C\leq8)}$.

55. The compound of claim 54, wherein $R_4$ is pyridinyl or pyrimidinyl.

56. The compound of claim 44, wherein $R_4$ is $acyl_{(C\leq6)}$ or substituted $acyl_{(C\leq6)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

57. The compound of claim 56, wherein $R_4$ is ethoxycarbonyl.

58. The compound according to one of claims 1-3 and 7-57, wherein $R_5$ is absent.

59. The compound according to one of claims 1-3 and 7-57, wherein $R_5$ is hydrogen.

60. The compound according to one of claims 1-3 and 7-57, wherein $R_5$ is $alkyl_{(C\leq8)}$, $aryl_{(C\leq8)}$, $acyl_{(C\leq8)}$, or a substituted version of any of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced

by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

61. The compound of claim 60, wherein $R_5$ is $alkyl_{(C\leq6)}$ or substituted $alkyl_{(C\leq6)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

62. The compound of claim 61, wherein $R_5$ is $alkyl_{(C\leq6)}$.

63. The compound of claim 61, wherein $R_5$ is methyl, cyclohexyl, or *t*-butyl.

64. The compound of claim 61, wherein $R_5$ is substituted $alkyl_{(C\leq4)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

65. The compound of claim 64, wherein $R_5$ is 2-hydroxyethyl or 2,2,2-trifluoroethyl.

66. The compound of claim 60, wherein $R_5$ is $aryl_{(C\leq8)}$ or substituted $aryl_{(C\leq8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

67. The compound of claim 66, wherein $R_5$ is $aryl_{(C\leq8)}$.

68. The compound of claim 67, wherein $R_5$ is phenyl.

69. The compound of claim 60, wherein $R_5$ is $acyl_{(C\leq8)}$ or substituted $acyl_{(C\leq8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

70. The compound of claim 69, wherein $R_5$ is acetyl, methoxycarbonyl, ethoxycarbonyl, or phenylcarbonyl.

71. The compound according to one of claims 1-70, wherein $R_6$ is hydrogen.

72. The compound according to one of claims 1-70, wherein $R_6$ is cyano.

73. The compound according to one of claims 1-70, wherein $R_6$ is halo.

74. The compound of claim 73, wherein $R_6$ is chloro or bromo.

75. The compound according to one of claims 1-70, wherein $R_6$ is $alkyl_{(C\leq6)}$ or substituted $alkyl_{(C\leq6)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

76. The compound of claim 75, wherein $R_6$ is $alkyl_{(C\leq6)}$.

77. The compound of claim 76, wherein $R_6$ is methyl, isopropyl or cyclohexyl.

77. The compound of claim 76, wherein $R_6$ is methyl, isopropyl or cyclohexyl.

78. The compound according to one of claims 1-70, wherein $R_6$ is $aryl_{(C\leq8)}$, $heteroaryl_{(C\leq8)}$ or a substituted version of either of these groups, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

79. The compound according to one of claims 1-70, wherein $R_6$ is $aryl_{(C\leq10)}$.

80. The compound of claim 79, wherein $R_6$ is phenyl, methylphenyl or naphthyl.

81. The compound of claim 78, wherein $R_6$ is substituted $aryl_{(C\leq8)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

82. The compound of claim 81, wherein $R_6$ is chlorophenyl, fluorophenyl or methoxyphenyl.

83. The compound of claim 78, wherein $R_6$ is $heteroaryl_{(C\leq8)}$.

84. The compound of claim 83, wherein $R_6$ is pyridinyl, pyrimidinyl, methylpyrazolyl, dimethylisoxazolyl, methyltriazolyl, or methyltetrazolyl.

85. The compound according to one of claims 1-70, wherein $R_6$ is $aralkyl_{(C\leq12)}$ or substituted $aralkyl_{(C\leq12)}$, wherein the term "substituted" means that one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-OC(O)CH_3$, or $-S(O)_2NH_2$.

86. The compound of claim 85, wherein $R_6$ is benzyl.

87. The compound according to one of claims 1-70, wherein $R_6$ is $amido_{(C\leq8)}$.

88. The compound of claim 87, wherein $R_6$ is phenylcarbonylamino.

89. The compound according to one of claims 1-70, wherein $R_6$ is $alkynyl_{(C\leq8)}$.

90. The compound of claim 89, wherein $R_6$ is ethynyl.

91. The compound according to one of claims 1-70, wherein $R_6$ is $acyl_{(C\leq8)}$.

92. The compound according to one of claims 1-70, wherein $R_6$ is aminocarbonyl or dimethylaminocarbonyl.

93. The compound according to one of claims 1-70, wherein $R_6$ is $alkoxy_{(C\leq8)}$.

94. The compound of claim 93, wherein $R_6$ is methoxy.

95. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ or $R_8$ is hydrogen.

96. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ or $R_8$ is halo.

97. The compound of claim 96, wherein $R_7$ or $R_8$ is bromo.

98. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ is $aryl_{(C\leq8)}$.

99. The compound of claim 98, wherein $R_7$ is phenyl.

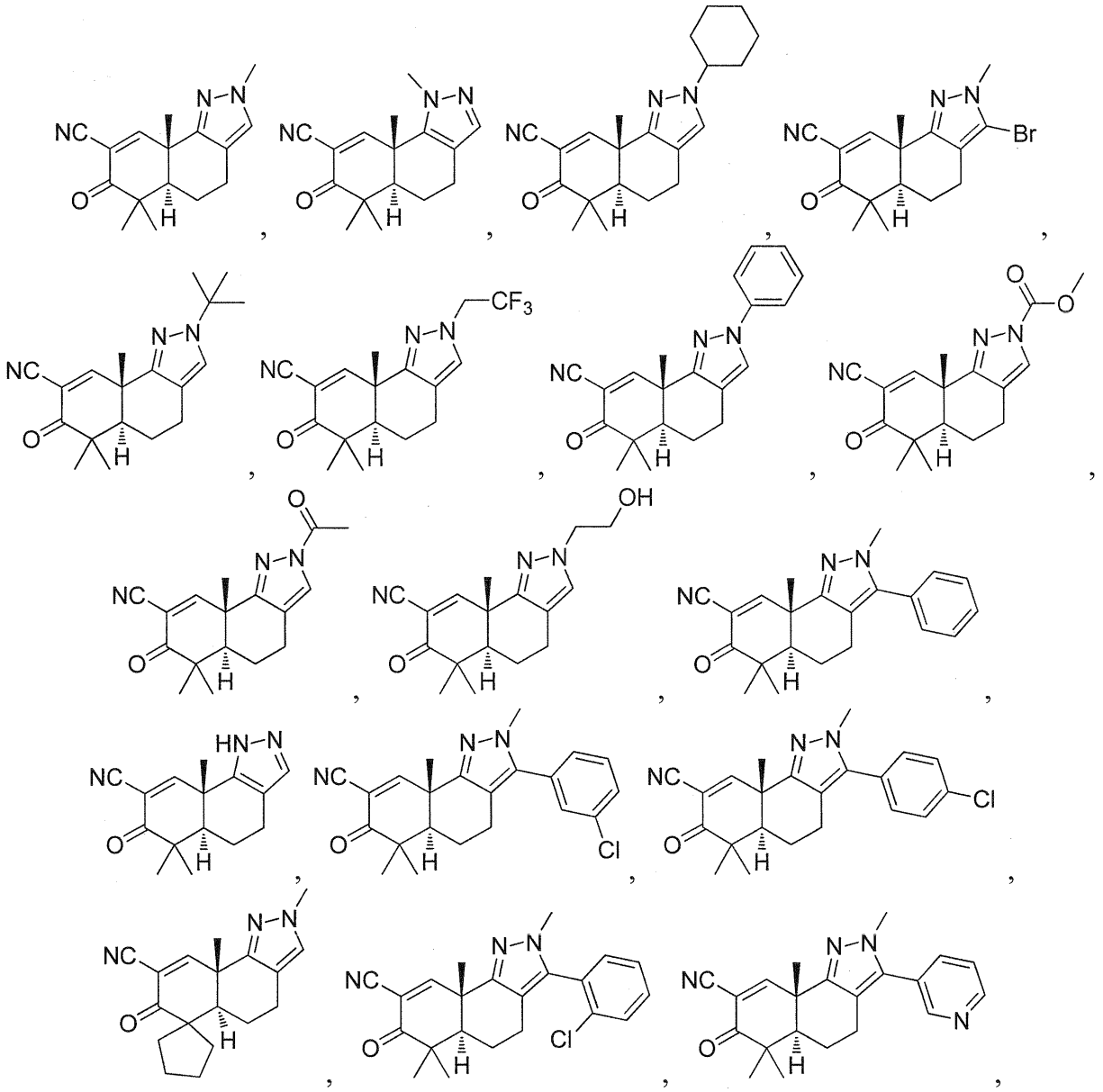
100. The compounds according to any one of claims 3-94, wherein carbon atom 10 is in the *R* configuration.

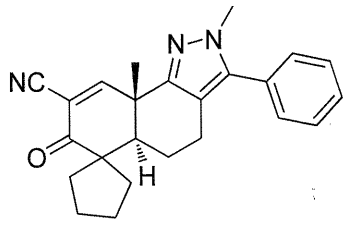
101. The compounds according to any one of claims 3-94, wherein carbon atom 10 is in the *S* configuration.

102. The compounds according to any one of claims 3-101, wherein carbon atom 5 is in the *R* configuration.

103. The compounds according to any one of claims 3-101, wherein carbon atom 5 is in the *S* configuration.

104. The compound of claim 1, further defined as:

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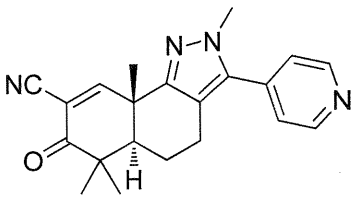
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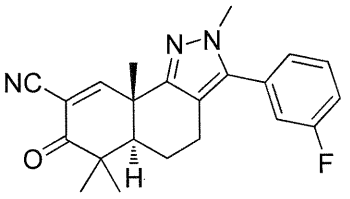
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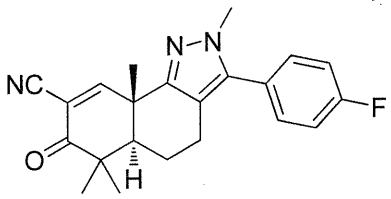
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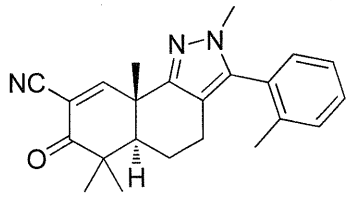
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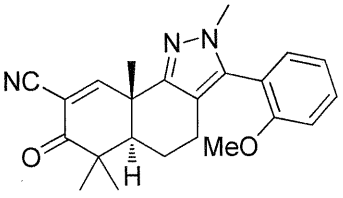
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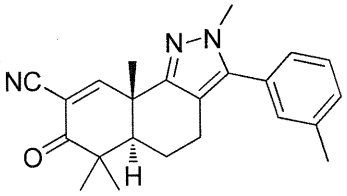
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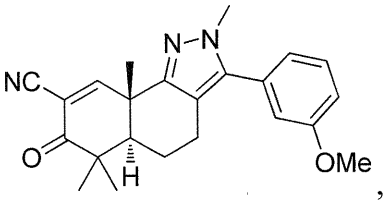
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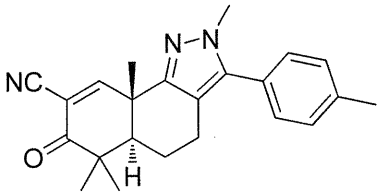
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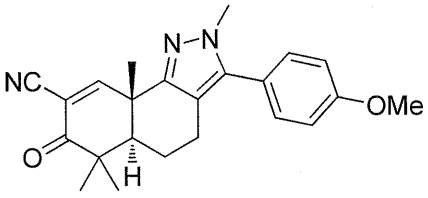
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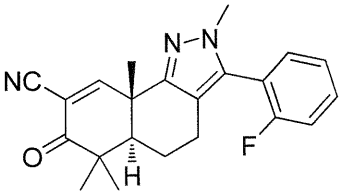
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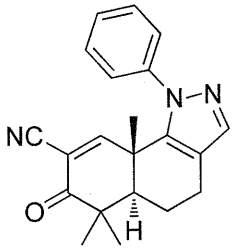
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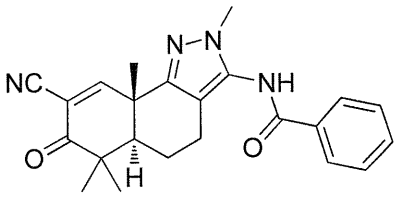
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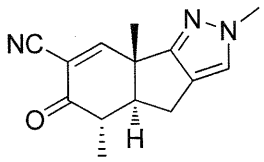
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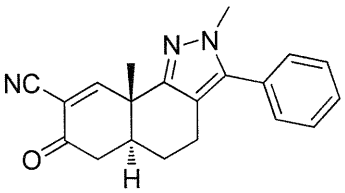
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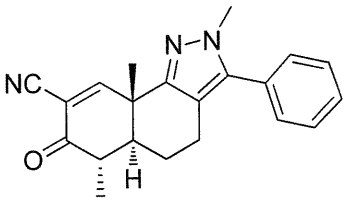
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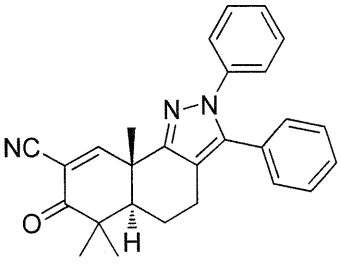
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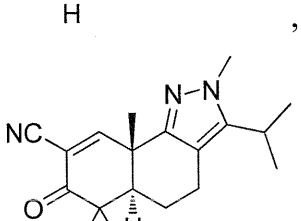
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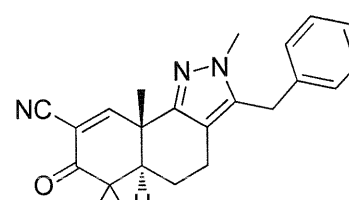
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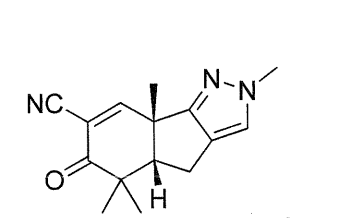
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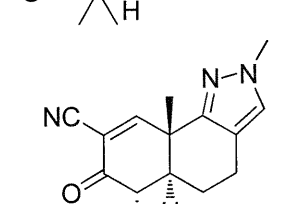
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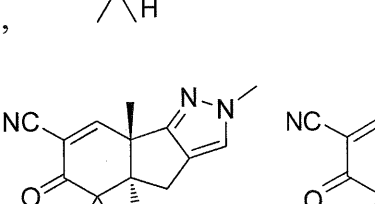
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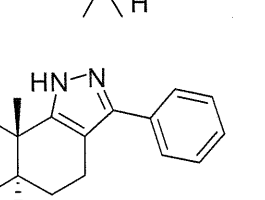
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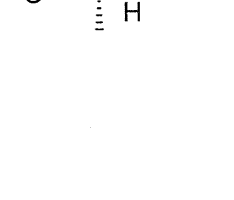
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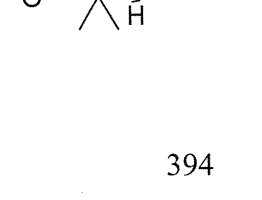
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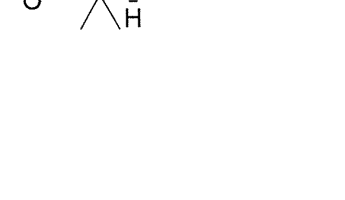
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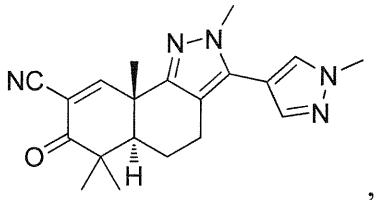
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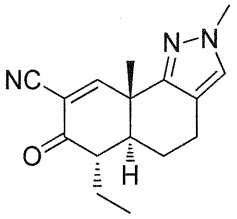
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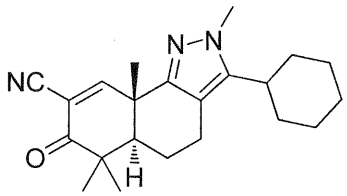
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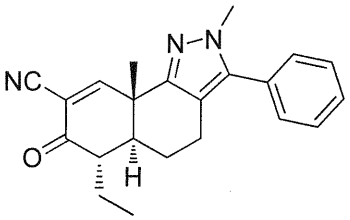
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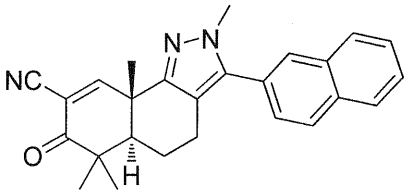
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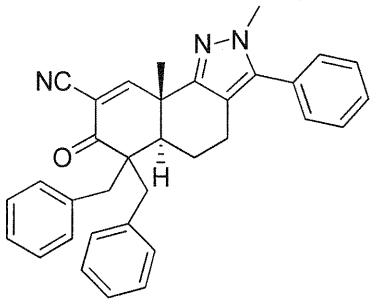
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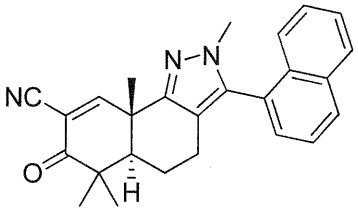
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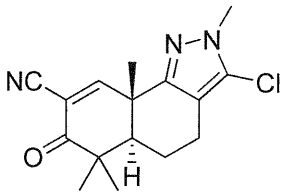
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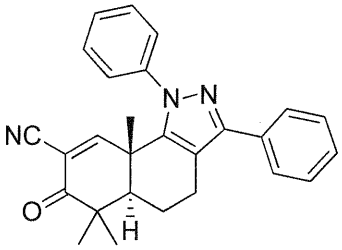
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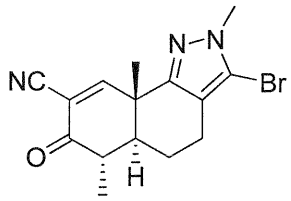
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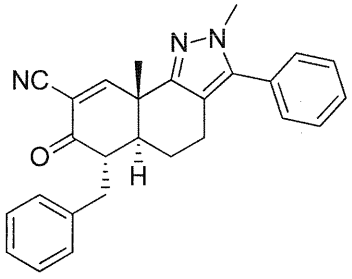
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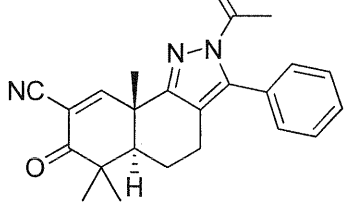
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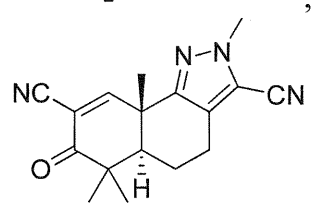
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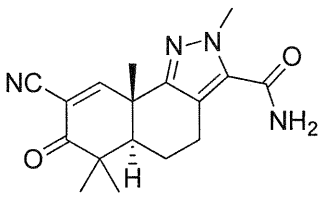
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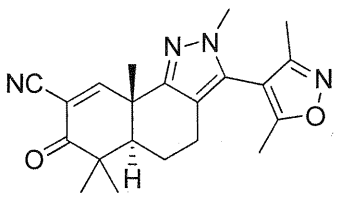
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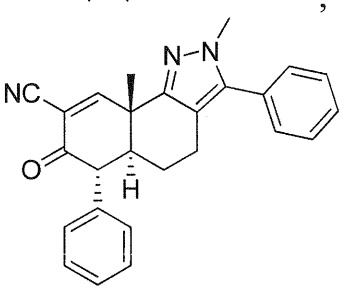
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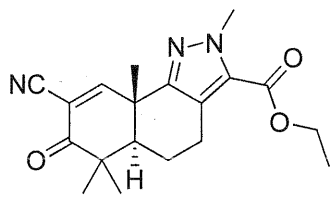
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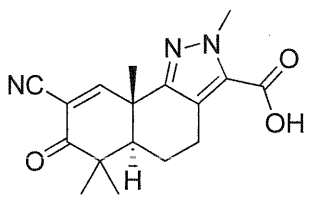
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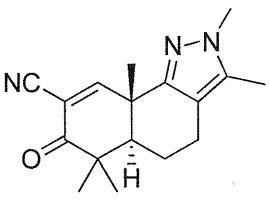
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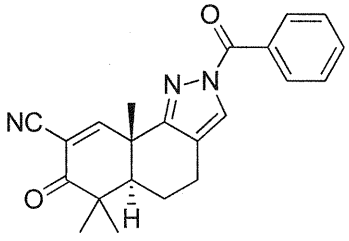
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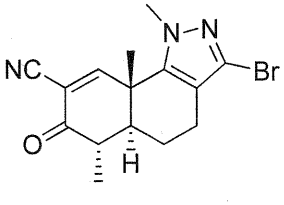
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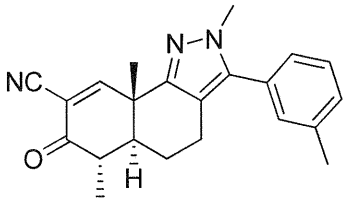
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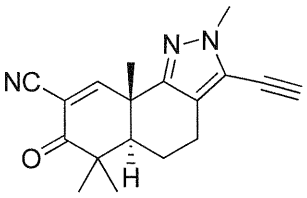
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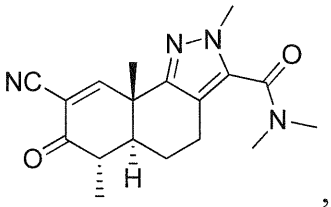
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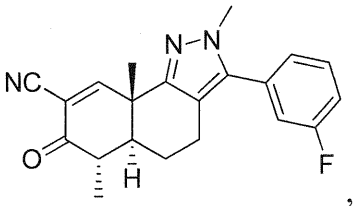
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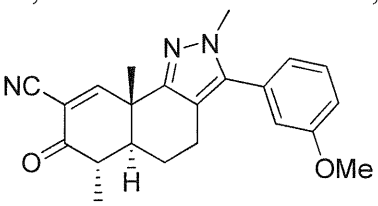
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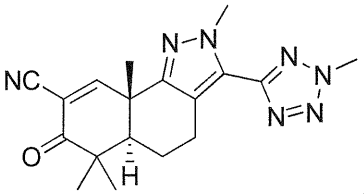
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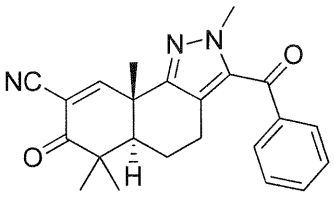
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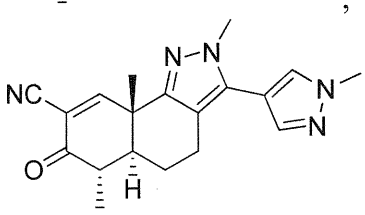
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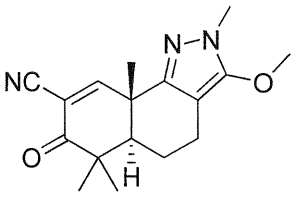
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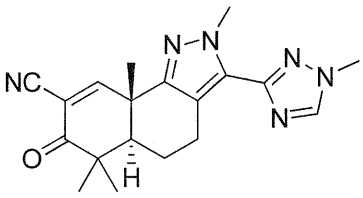
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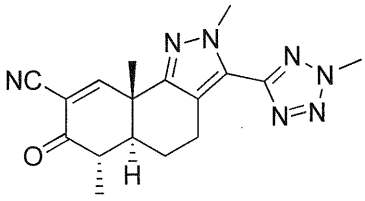
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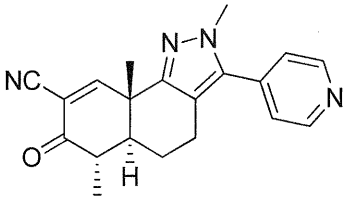
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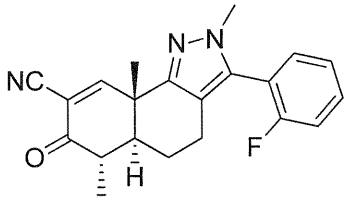
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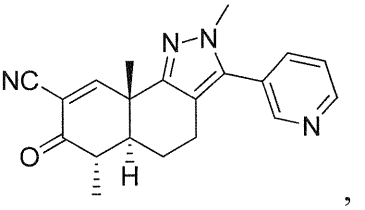
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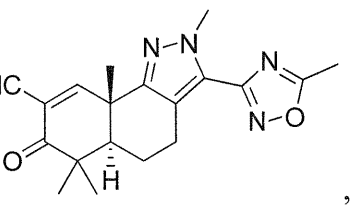
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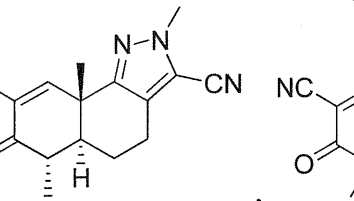
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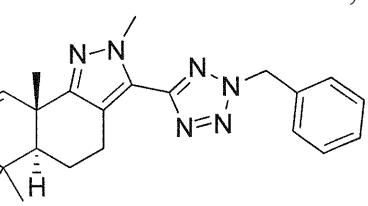
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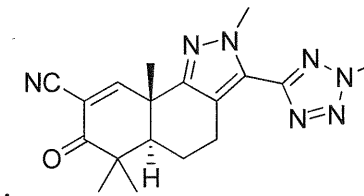
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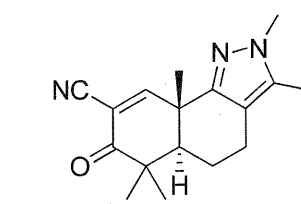
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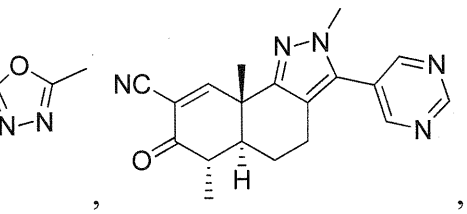
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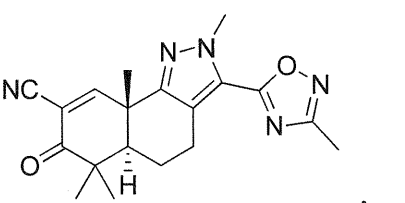
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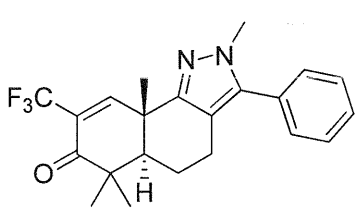
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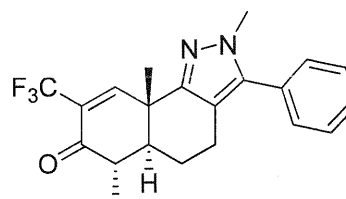
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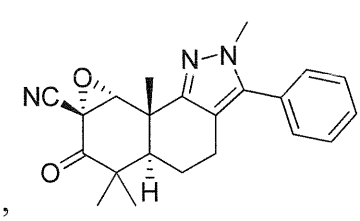
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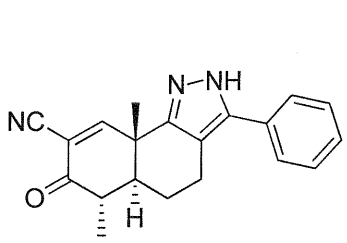
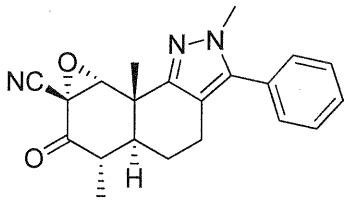
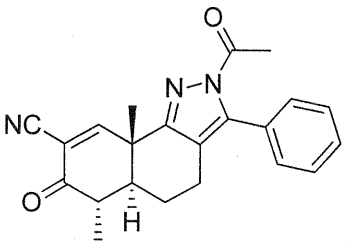
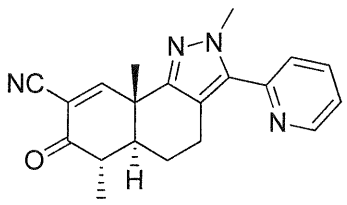
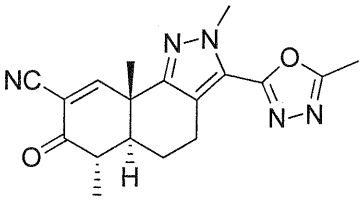
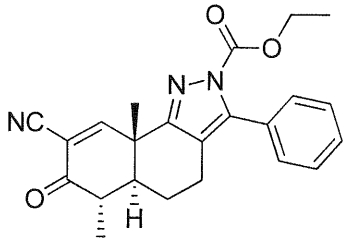
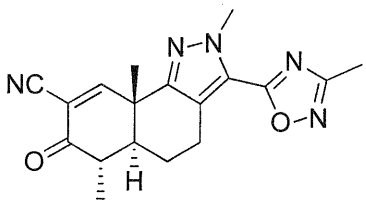
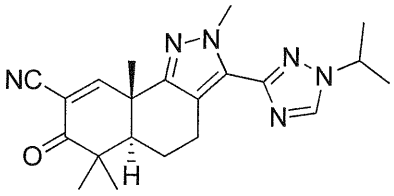
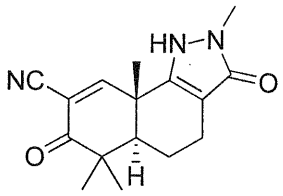

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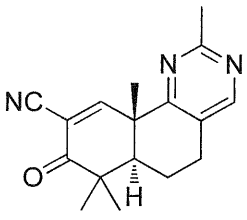
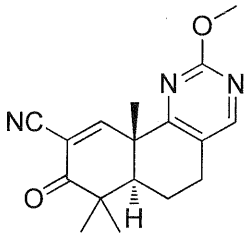
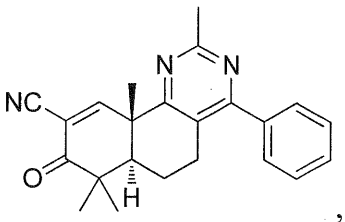
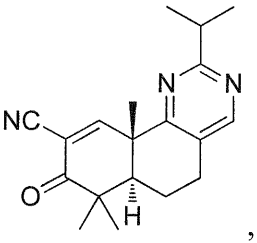
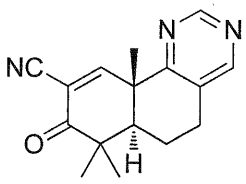
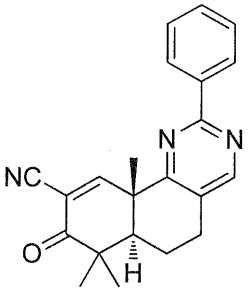
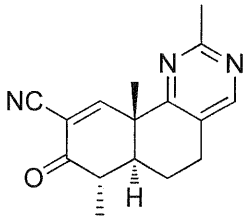
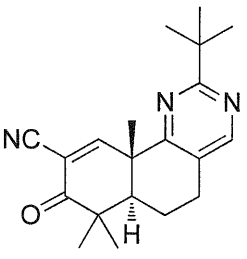
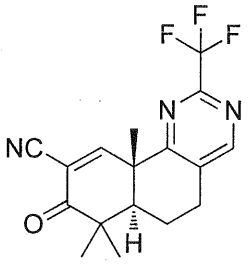
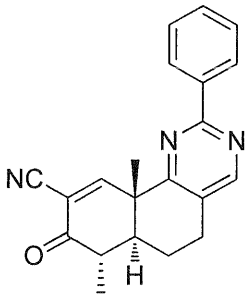
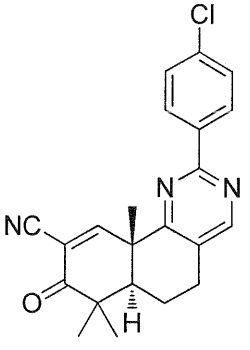
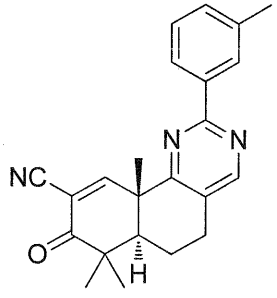

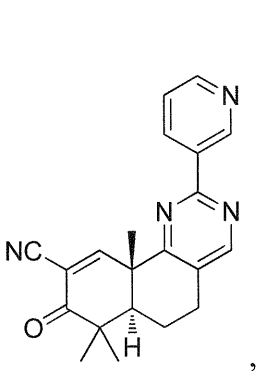
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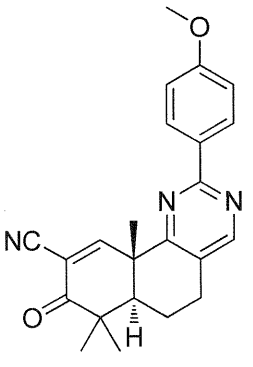
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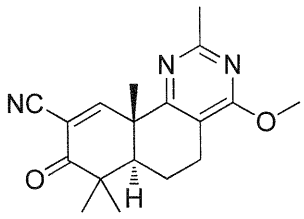
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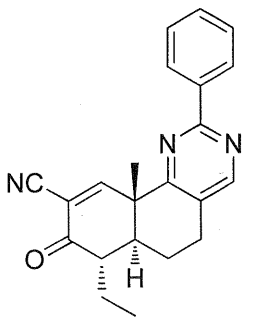
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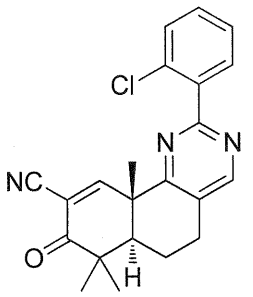
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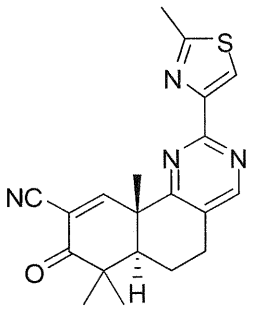
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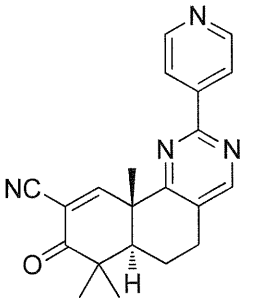
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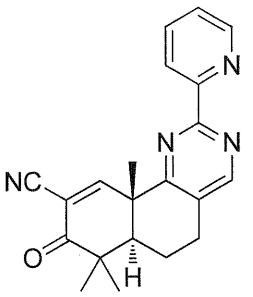
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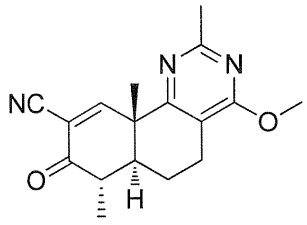
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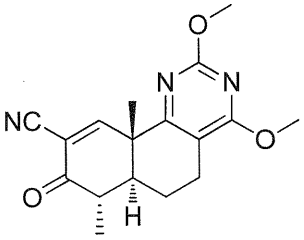
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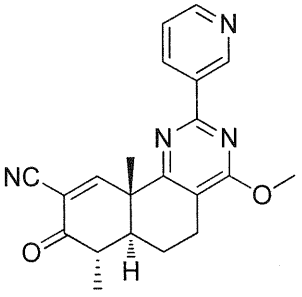
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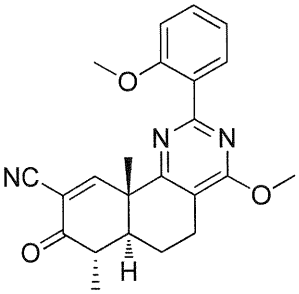
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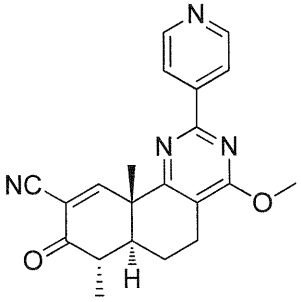
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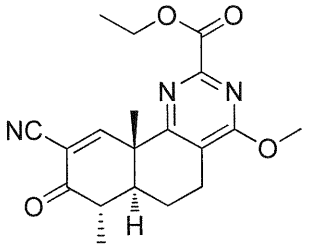
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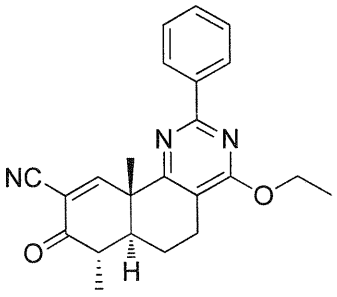
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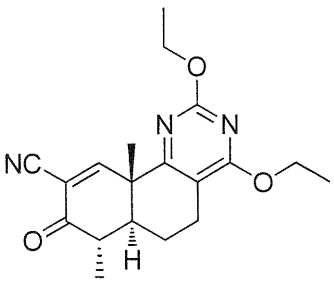
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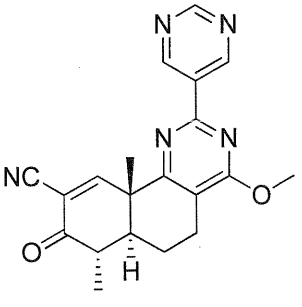
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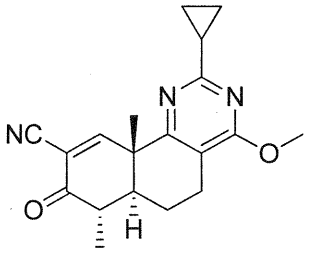
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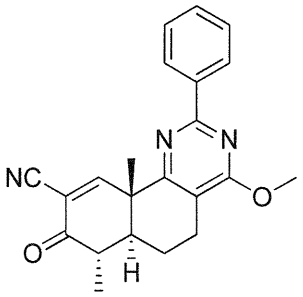
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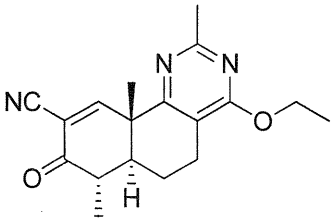
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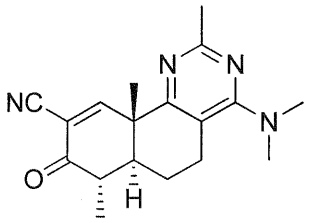
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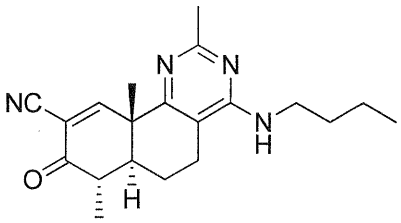
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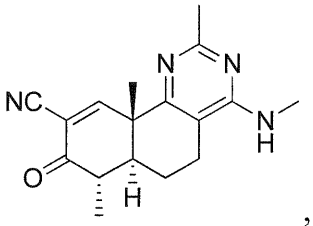
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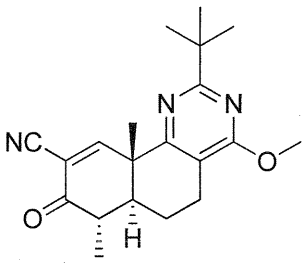
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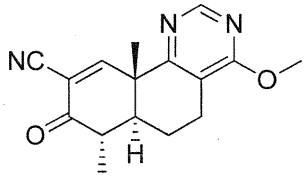
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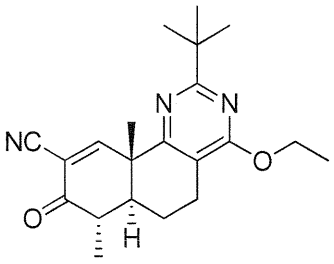
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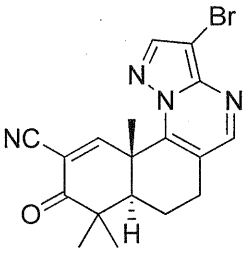
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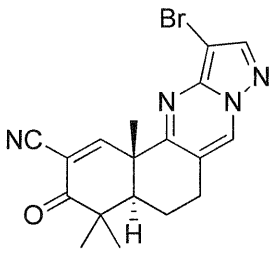
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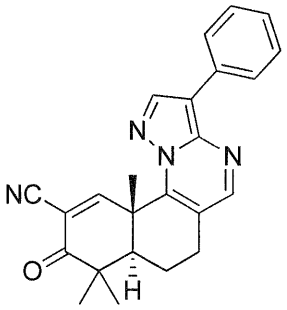
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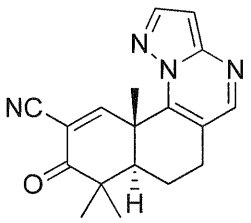
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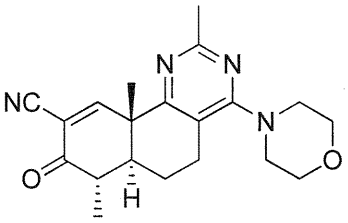
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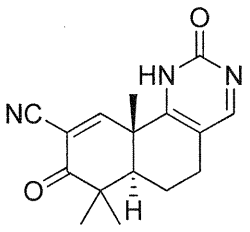
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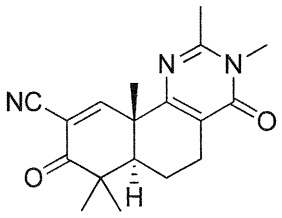
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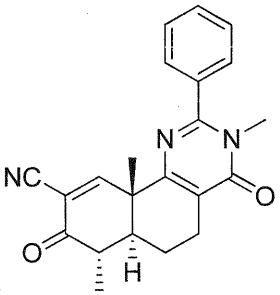
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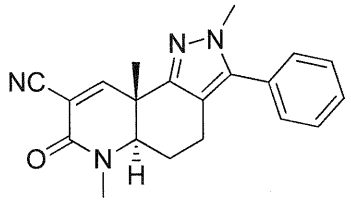
106. A compound of the formula: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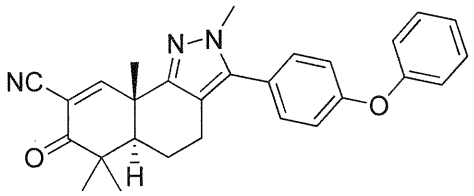
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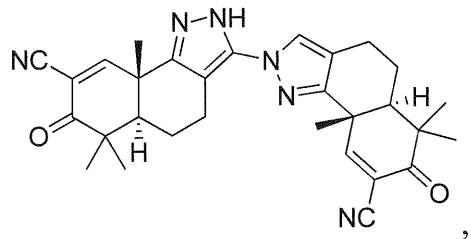
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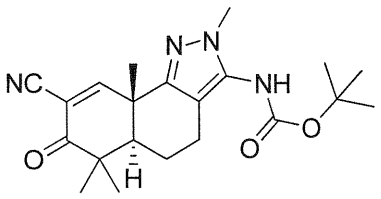
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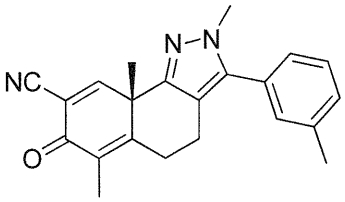
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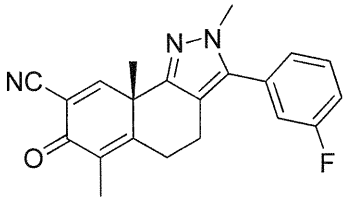
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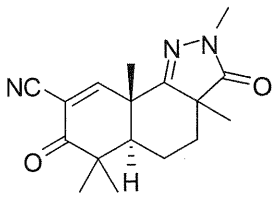
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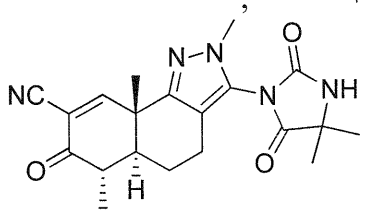
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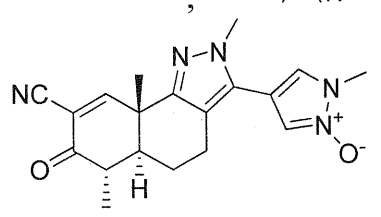
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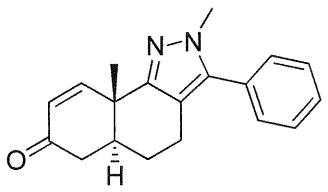
107. A compound of the formula: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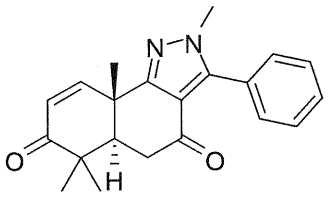
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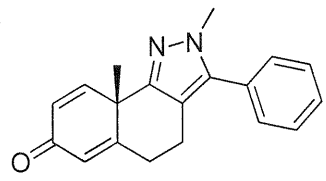
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108. A pharmaceutical composition comprising:

a) the compound according to any one of claims 1-105;

b) an optical isomer of the compound, wherein the optical isomer is the enantiomer of the compound; and

c) an excipient.

109. The pharmaceutical composition of claim 108, wherein the ratio of the amount of compound to the amount of optical isomer is 1:1.

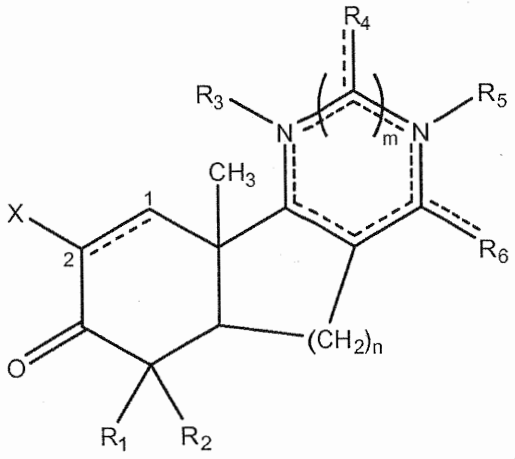
110. The pharmaceutical composition of claim 108, wherein the ratio of the amount of compound to the amount of optical isomer is 5:1.

111. The pharmaceutical composition of claim 108, wherein the ratio of the amount of compound to the amount of optical isomer is 10:1.

112. The pharmaceutical composition of claim 108, wherein the ratio of the amount of compound to the amount of optical isomer is 20:1.

## CLAIMS

1. A compound of the formula:



(I),

wherein:

the atoms labeled 1 and 2 are connected either by a double bond or an epoxidized double bond;

n is 1 or 2;

m is 0 or 1;

X is $-CN$, $-CF_3$, or $-C(O)R_a$, wherein $R_a$ is $-OH$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $dialkylamino_{(C\leq6)}$, or $-NHS(O)_2-alkyl_{(C1-4)}$;

$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, $alkoxydiyl_{(C\leq12)}$, $alkylaminodiyl_{(C\leq12)}$, or a substituted version of any of these groups;

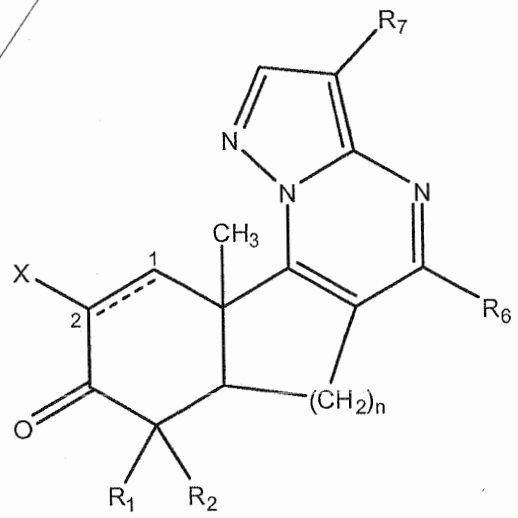
$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; or $R_3$ is taken together with $R_4$ as provided below; provided that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

$R_4$ is hydrogen, hydroxy, amino, halo, cyano, or oxo; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycle-alkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $hetero-aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $aryl-amino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or $R_4$ is taken together with either $R_3$ or $R_5$ as provided below;

$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; or $R_5$ is taken together with $R_4$ as provided below; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, cyano, or oxo; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycle-alkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $hetero-aryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $aryl-amino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups;

provided that when $R_3$ and $R_4$ are taken together, the compound is further defined by formula Ia:

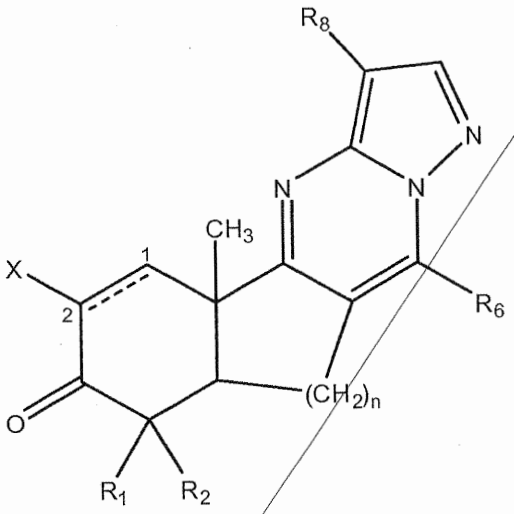



(Ia)

wherein $R_7$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralk-$

oxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups; or

provided that when $R_4$ and $R_5$ are taken together, the compound is further defined by formula Ib:

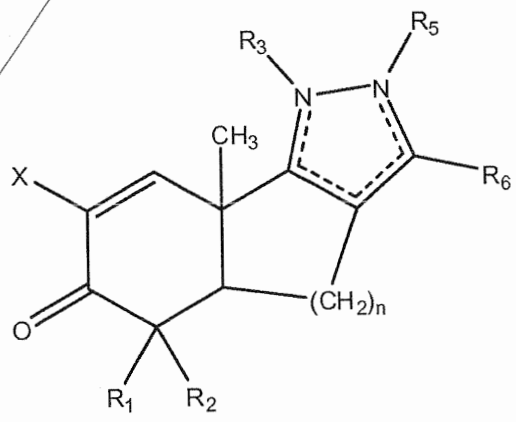


(Ib)

wherein $R_8$ is hydrogen, hydroxy, amino, halo, or cyano; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

2. The compound of claim 1, further defined by the formula:



(II),

wherein:

n is 1 or 2;

X is $-CN$, $-CF_3$, or $-C(O)R_a$, wherein $R_a$ is $-OH$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $dialkylamino_{(C\leq6)}$, or $-NHS(O)_2-alkyl_{(C1-4)}$;

$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, $alkoxydiyl_{(C\leq12)}$, $alkylaminodiyl_{(C\leq12)}$, or a substituted version of any of these groups;

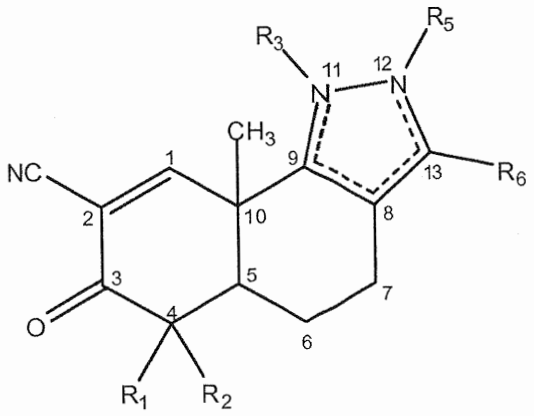
$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; provided that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

3. The compound of claim 1, further defined by the formula:




(III),

wherein:

$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, $alkoxydiyl_{(C\leq12)}$, $alkylaminodiyl_{(C\leq12)}$, or a substituted version of any of these groups;

$R_3$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; provided that $R_3$ is absent when and only when the atom to which it is bound forms part of a double bond;

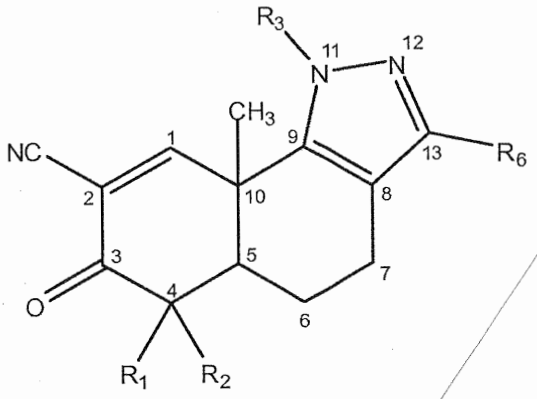
$R_5$ is absent, hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; provided that $R_5$ is absent when and only when the atom to which it is bound forms part of a double bond; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, hetero-

aryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

4. The compound of claim 3, further defined by the formula:




(IV),

wherein:

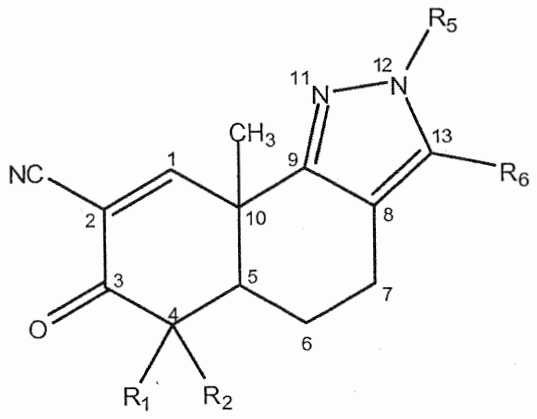
$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

$R_3$ is hydrogen; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$ or a substituted version of any of these groups; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

5. The compound of claim 3, further defined by the formula:




(V),

wherein:

$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or

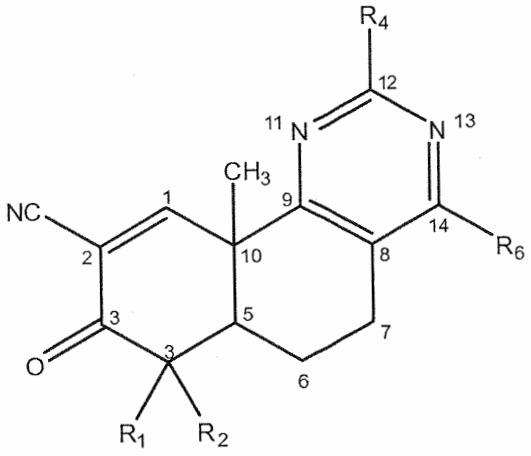
$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, $alkoxydiyl_{(C\leq12)}$, $alkylaminodiyl_{(C\leq12)}$, or a substituted version of any of these groups;

$R_5$ is hydrogen; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$ or a substituted version of any of these groups; and

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

6. The compound of claim 1, further defined as:




(VI),

wherein:

$R_1$ and $R_2$ are each independently hydrogen, hydroxy, halo, or amino; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

$R_4$ is hydrogen, hydroxy, amino, halo, or cyano; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

$R_6$ is hydrogen, hydroxy, amino, halo, or cyano; or alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

7. The compound of claim 1, wherein the atoms labeled 1 and 2 are connected by a double bond.

8. The compound of claim 1, wherein the atoms labeled 1 and 2 are connected by an epoxidized double bond.

9. The compound according to one of claims 1, 2, 7 and 8, wherein n is 1.

10. The compound according to one of claims 1, 2, 7 and 8, wherein n is 2.

11. The compound according to one of claims 1 and 7-10, wherein m is 0.

12. The compound according to one of claims 1, and 7-10, wherein m is 1.

13. The compound according to one of claims 1, 2 and 7-12, wherein X is –CN.

14. The compound according to one of claims 1, 2 and 7-12, wherein X is $-CF_3$.

15. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $alkyl_{(C\leq 8)}$ or substituted $alkyl_{(C\leq 8)}$.

16. The compound according to one of claims 1-15, wherein $R_1$ or $R_2$ is $alkyl_{(C\leq 8)}$.

17. The compound of claim 16, wherein $R_1$ or $R_2$ is methyl.

18. The compound of claim 17, wherein $R_1$ and $R_2$ are each methyl.

19. The compound of claim 17, wherein $R_1$ is methyl and $R_2$ is hydrogen.

20. The compound of claim 16, wherein $R_1$ or $R_2$ is ethyl.

21. The compound of claim 20, wherein $R_1$ is ethyl and $R_2$ is hydrogen.

22. The compound according to one of claims 1-15, wherein $R_1$ or $R_2$ is hydrogen.

23. The compound of claim 22, wherein $R_1$ and $R_2$ are each hydrogen.

24. The compound according to one of claims 1-14, wherein $R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq 8)}$.

25. The compound of claim 24, wherein $R_1$ and $R_2$ are taken together and are 1,4-butanediyl.

26. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $aryl_{(C\leq 8)}$.

27. The compound of claim 26, wherein $R_1$ or $R_2$ is phenyl.

28. The compound of claim 27, wherein $R_1$ is phenyl and $R_2$ is hydrogen.

29. The compound according to one of claims 1-14, wherein $R_1$ or $R_2$ is $aralkyl_{(C\leq 8)}$.

30. The compound of claim 29, wherein $R_1$ or $R_2$ is benzyl.

31. The compound of claim 30, wherein $R_1$ is benzyl and $R_2$ is hydrogen.

32. The compound of claim 30, wherein $R_1$ and $R_2$ are each benzyl.

33. The compound according to one of claims 1-3 and 7-32, wherein $R_3$ is absent.

34. The compound according to one of claims 1-4 and 7-32, wherein $R_3$ is hydrogen.

35. The compound according to one of claims 1-4 and 7-32, wherein $R_3$ is $alkyl_{(C\leq 8)}$, $aryl_{(C\leq 8)}$, $acyl_{(C\leq 8)}$, $alkoxy_{(C\leq 8)}$ or a substituted version of any of these groups.

36. The compound of claim 35, wherein $R_3$ is $alkyl_{(C\leq 4)}$ or substituted $alkyl_{(C\leq 4)}$.

37. The compound of claim 36, wherein $R_3$ is $alkyl_{(C\leq 4)}$.

38. The compound of claim 36, wherein $R_3$ is methyl.

39. The compound of claim 35, wherein $R_3$ is $aryl_{(C\leq 8)}$ or substituted $aryl_{(C\leq 8)}$.

40. The compound of claim 36, wherein $R_3$ is $aryl_{(C\leq 8)}$.

41. The compound of claim 40, wherein $R_3$ is phenyl.

42. The compound according to one of claims 1 and 6-41, wherein $R_4$ is hydrogen.

43. The compound according to one of claims 1 and 6-41, wherein $R_4$ is oxo.

44. The compound according to one of claims 1 and 6-41, wherein $R_4$ is $alkyl_{(C\leq 8)}$, $aryl_{(C\leq 8)}$, $acyl_{(C\leq 8)}$, $alkoxy_{(C\leq 8)}$ or a substituted version of any of these groups.

45. The compound of claim 44, wherein $R_4$ is $alkyl_{(C\leq 6)}$ or substituted $alkyl_{(C\leq 6)}$.

46. The compound of claim 45, wherein $R_4$ is $alkyl_{(C\leq 6)}$.

47. The compound of claim 46, wherein $R_4$ is methyl, isopropyl, *t*-butyl, or cyclopropyl.

48. The compound of claim 45, wherein $R_4$ is haloalkyl$_{(C\leq6)}$.

49. The compound of claim 48, wherein $R_4$ is trifluoromethyl.

50. The compound of claim 44, wherein $R_4$ is alkoxy$_{(C\leq6)}$.

51. The compound of claim 50, wherein $R_4$ is methoxy or ethoxy.

52. The compound of claim 44, wherein $R_4$ is aryl$_{(C\leq8)}$ or substituted aryl$_{(C\leq8)}$.

53. The compound of claim 33, wherein $R_4$ is phenyl, chlorophenyl, methylphenyl, or methoxyphenyl.

54. The compound of claim 44, wherein $R_4$ is heteroaryl$_{(C\leq8)}$.

55. The compound of claim 54, wherein $R_4$ is pyridinyl or pyrimidinyl.

56. The compound of claim 44, wherein $R_4$ is acyl$_{(C\leq6)}$ or substituted acyl$_{(C\leq6)}$.

57. The compound of claim 56, wherein $R_4$ is ethoxycarbonyl.

58. The compound according to one of claims 1-3 and 7-57, wherein $R_5$ is absent.

59. The compound according to one of claims 1-4 and 7-57, wherein $R_5$ is hydrogen.

60. The compound according to one of claims 1-4 and 7-57, wherein $R_5$ is alkyl$_{(C\leq8)}$, aryl$_{(C\leq8)}$, acyl$_{(C\leq8)}$, alkoxy$_{(C\leq8)}$ or a substituted version of any of these groups.

61. The compound of claim 60, wherein $R_5$ is alkyl$_{(C\leq6)}$ or substituted alkyl$_{(C\leq6)}$.

62. The compound of claim 61, wherein $R_5$ is alkyl$_{(C\leq6)}$.

63. The compound of claim 61, wherein $R_5$ is methyl, cyclohexyl, or *t*-butyl.

64. The compound of claim 61, wherein $R_5$ is substituted alkyl$_{(C\leq4)}$.

65. The compound of claim 64, wherein $R_5$ is 2-hydroxyethyl or 2,2,2-trifluoroethyl.

66. The compound of claim 60, wherein $R_5$ is aryl$_{(C\leq8)}$ or substituted aryl$_{(C\leq8)}$.

67. The compound of claim 61, wherein $R_5$ is $aryl_{(C\leq 8)}$.

68. The compound of claim 67, wherein $R_5$ is phenyl.

69. The compound of claim 61, wherein $R_5$ is $acyl_{(C\leq 8)}$ or substituted $acyl_{(C\leq 8)}$.

70. The compound of claim 67, wherein $R_5$ is acetyl, methoxycarbonyl, ethoxycarbonyl, or phenylcarbonyl.

71. The compound according to one of claims 1-70, wherein $R_6$ is hydrogen.

72. The compound according to one of claims 1-70, wherein $R_6$ is cyano.

73. The compound according to one of claims 1-70, wherein $R_6$ is halo.

74. The compound of claim 73, wherein $R_6$ is chloro or bromo.

75. The compound according to one of claims 1-70, wherein $R_6$ is $alkyl_{(C\leq 6)}$ or substituted $alkyl_{(C\leq 6)}$.

76. The compound of claim 75, wherein $R_6$ is $alkyl_{(C\leq 6)}$.

77. The compound of claim 76, wherein $R_6$ is methyl, isopropyl or cyclohexyl.

78. The compound according to one of claims 1-70, wherein $R_6$ is $aryl_{(C\leq 8)}$, $heteroaryl_{(C\leq 8)}$ or a substituted version of either of these groups.

79. The compound of claim 78, wherein $R_6$ is $aryl_{(C\leq 10)}$.

80. The compound of claim 79, wherein $R_6$ is phenyl, methylphenyl or naphthyl.

81. The compound of claim 78, wherein $R_6$ is substituted $aryl_{(C\leq 8)}$.

82. The compound of claim 81, wherein $R_6$ is chlorophenyl, fluorophenyl or methoxyphenyl.

83. The compound of claim 78, wherein $R_6$ is $heteroaryl_{(C\leq 8)}$.

84. The compound of claim 83, wherein $R_6$ is pyridinyl, pyrimidinyl, methylpyrazolyl, dimethylisoxazolyl, methyltriazolyl, or methyltetrazolyl.

85. The compound according to one of claims 1-70, wherein $R_6$ is $aralkyl_{(C\leq12)}$ or substituted $aralkyl_{(C\leq12)}$.

86. The compound of claim 85, wherein $R_6$ is benzyl.

87. The compound according to one of claims 1-70, wherein $R_6$ is $amido_{(C\leq8)}$.

88. The compound of claim 87, wherein $R_6$ is phenylcarbonylamino.

89. The compound according to one of claims 1-70, wherein $R_6$ is $alkynyl_{(C\leq8)}$.

90. The compound of claim 89, wherein $R_6$ is ethynyl.

91. The compound according to one of claims 1-70, wherein $R_6$ is $acyl_{(C\leq8)}$.

92. The compound of claim 91, wherein $R_6$ is aminocarbonyl or dimethylaminocarbonyl.

93. The compound according to one of claims 1-70, wherein $R_6$ is $alkoxy_{(C\leq8)}$.

94. The compound of claim 93, wherein $R_6$ is methoxy.

95. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ or $R_8$ is hydrogen.

96. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ or $R_8$ is halo.

97. The compound of claim 96, wherein $R_7$ or $R_8$ is bromo.

98. The compound according to one of claims 1, 7-32 and 71-94, wherein $R_7$ or $R_8$ is $aryl_{(C\leq8)}$.

99. The compound of claim 98, wherein $R_7$ or $R_8$ is phenyl.

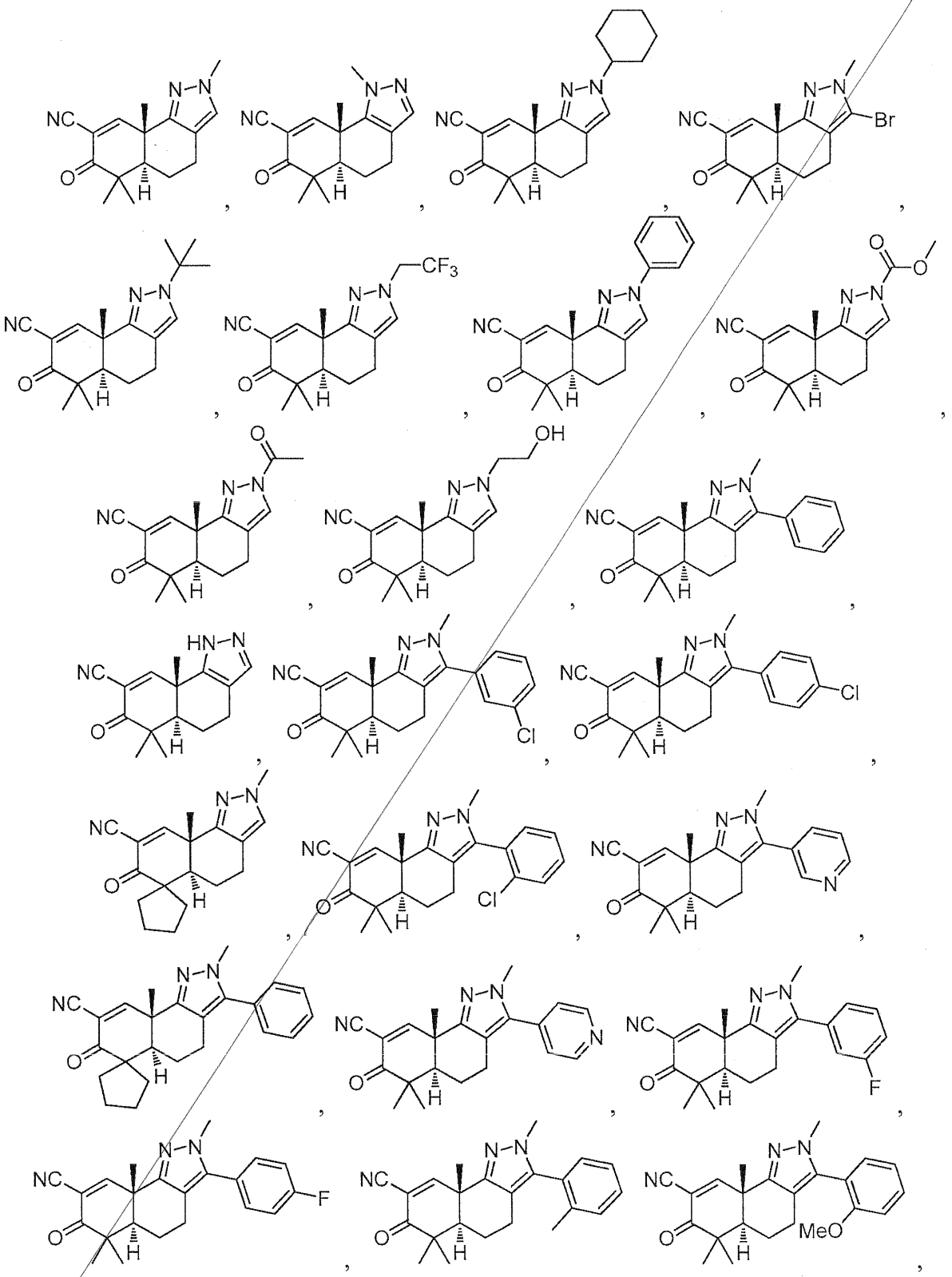
100. The compounds according to any one of claims 1-94, wherein carbon atom 10 is in the *R* configuration.

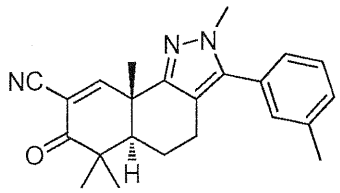
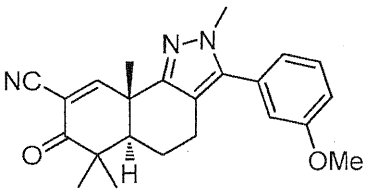
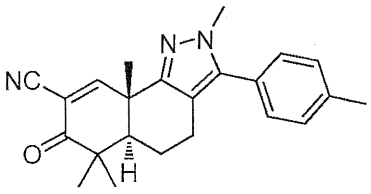
101. The compounds according to any one of claims 1-94, wherein carbon atom 10 is in the *S* configuration.

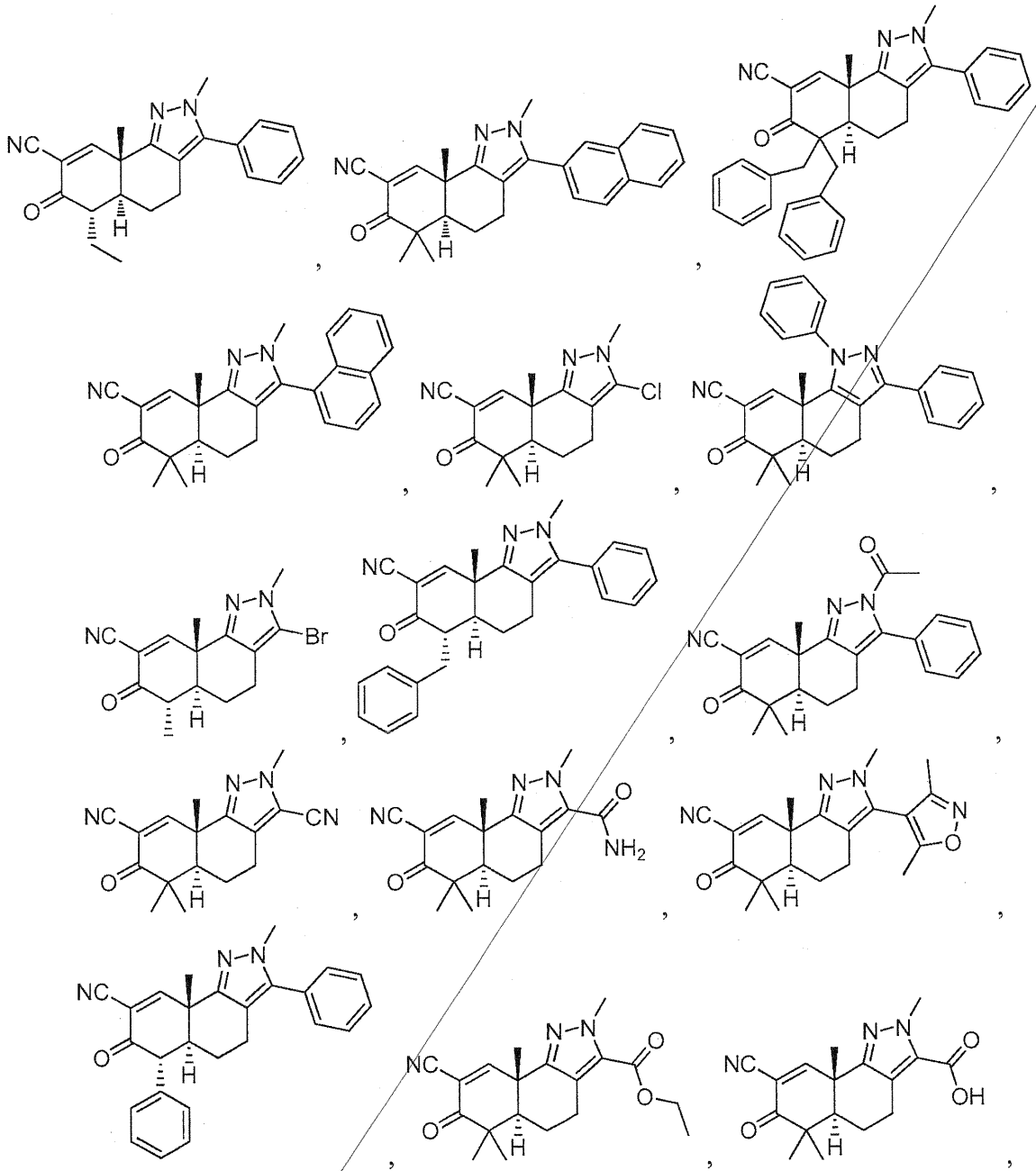
102. The compounds according to any one of claims 1-101, wherein carbon atom 5 is in the *R* configuration.

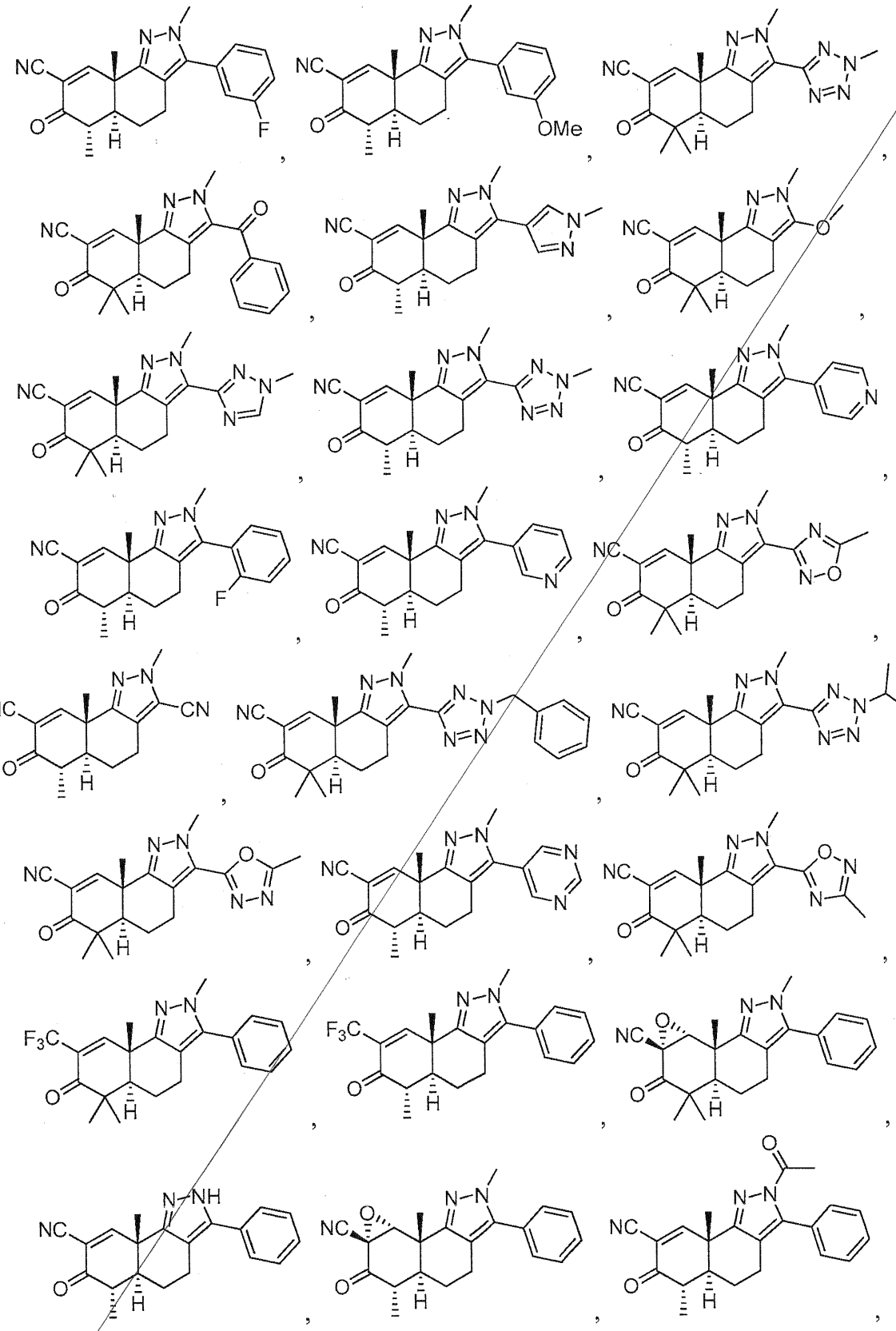
103. The compounds according to any one of claims 1-101, wherein carbon atom 5 is in the *S* configuration.

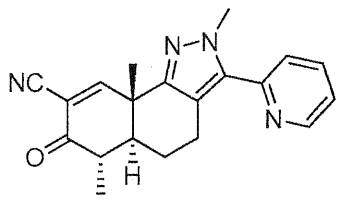
104. The compound of claim 1, further defined as:





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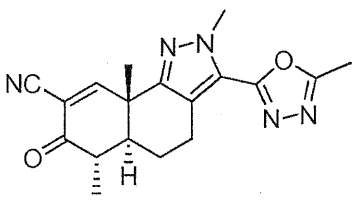
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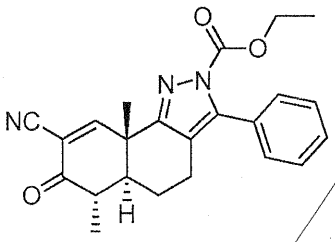
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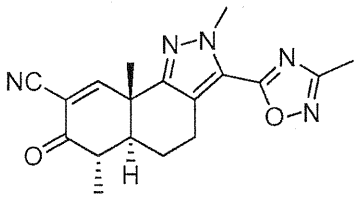
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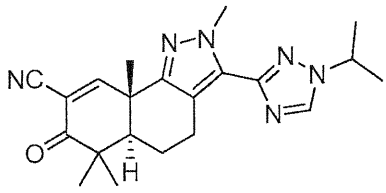
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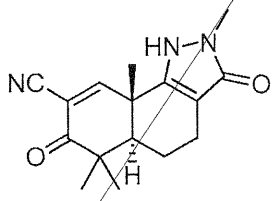
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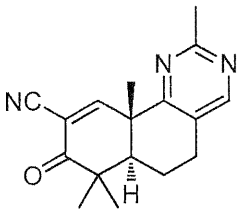
105. The compound of claim 1, further defined as: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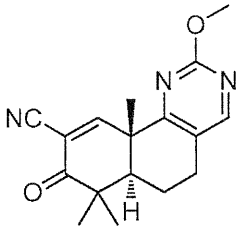
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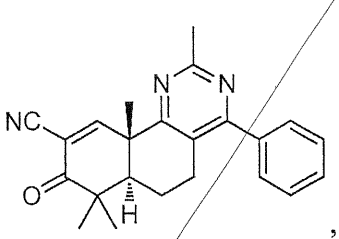
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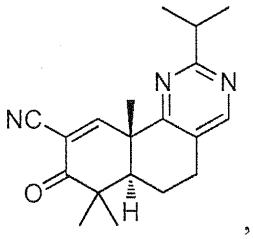
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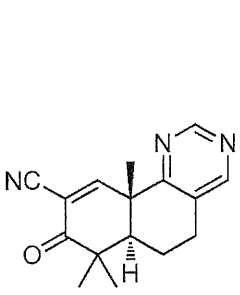
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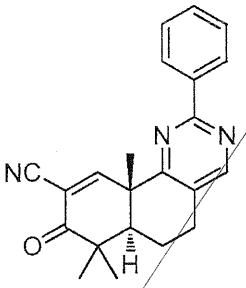
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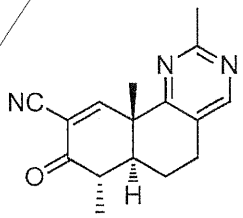
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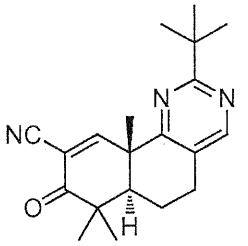
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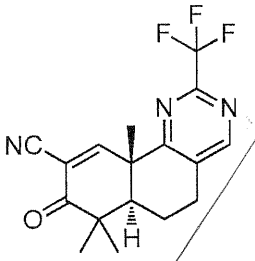
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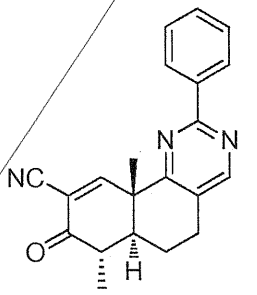
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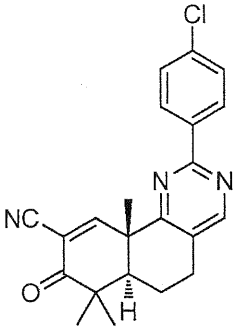
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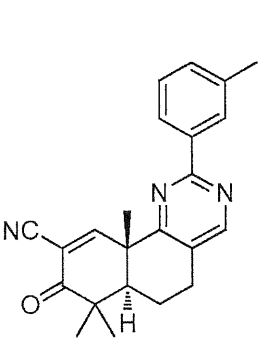
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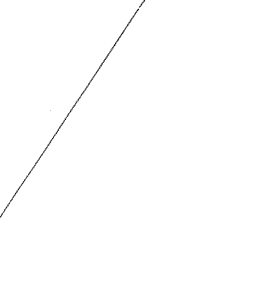
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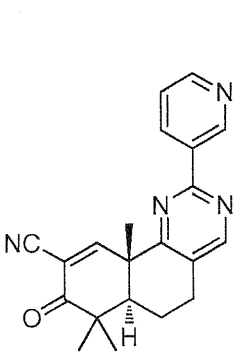
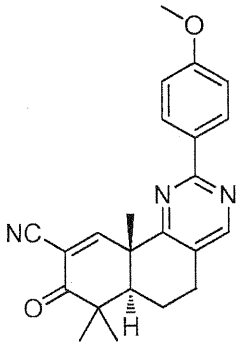
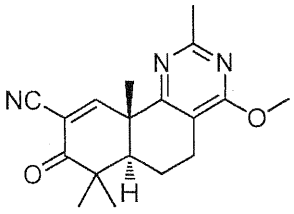
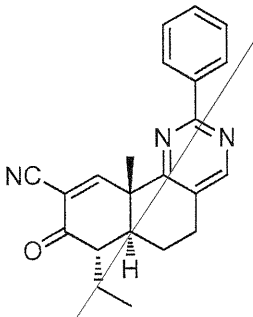
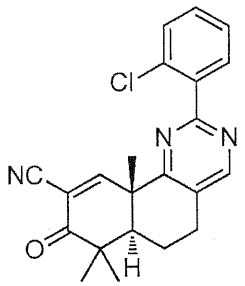
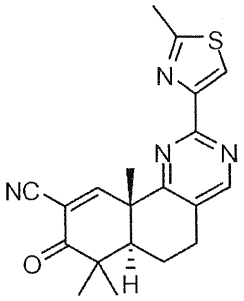
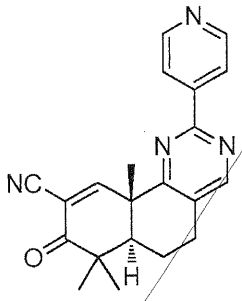
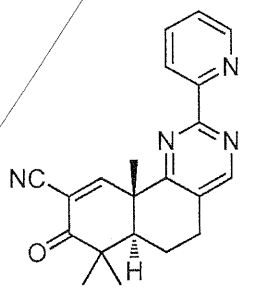
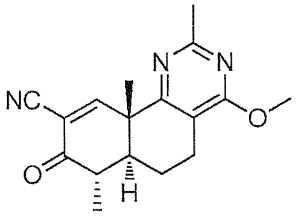
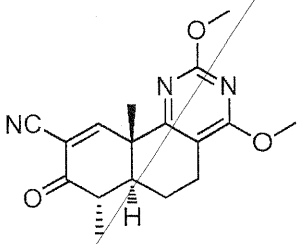
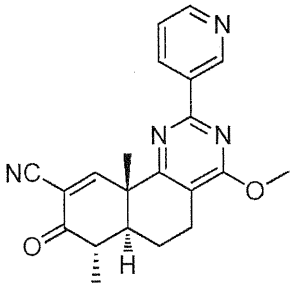
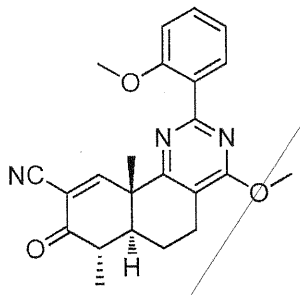
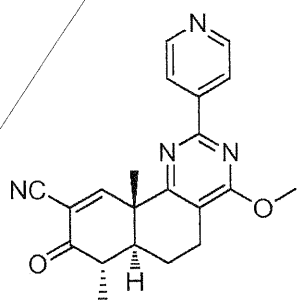
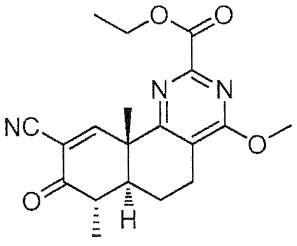
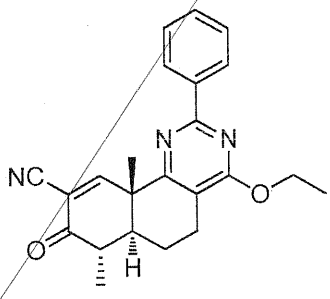
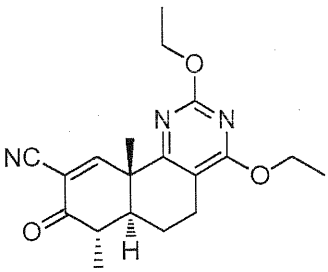
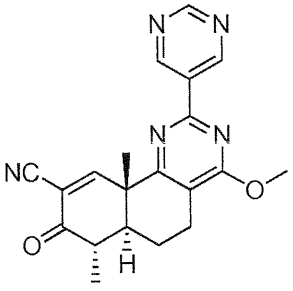

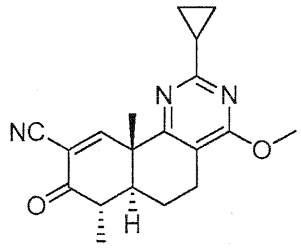
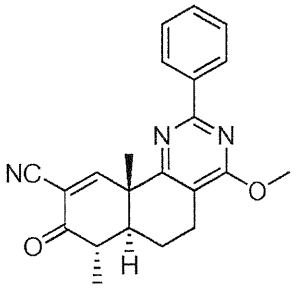
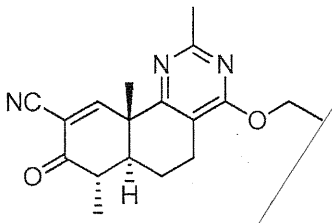
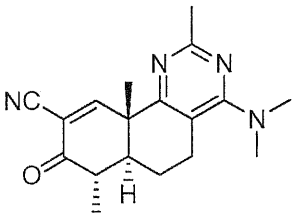
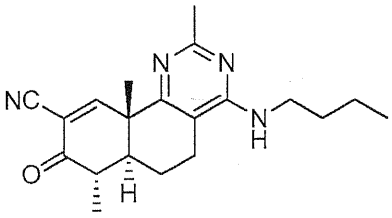
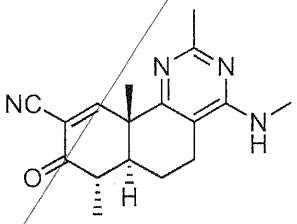
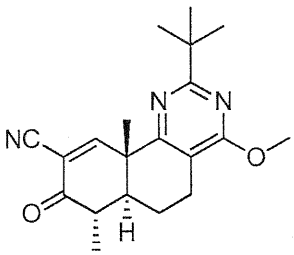
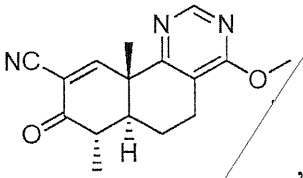
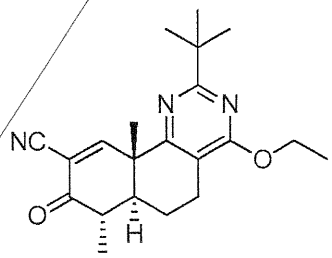
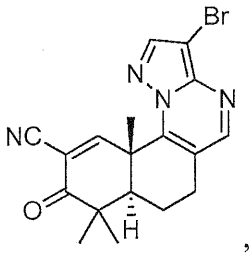
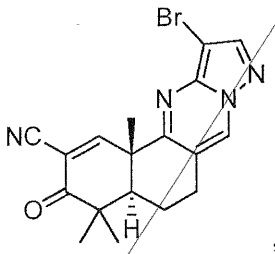
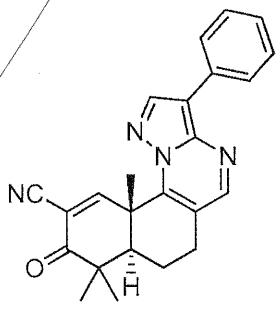
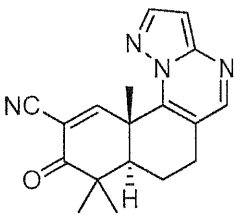
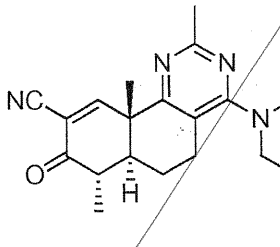
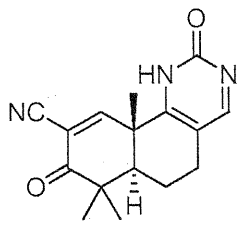
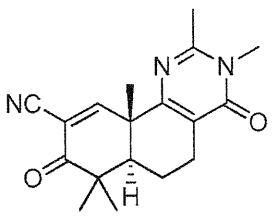


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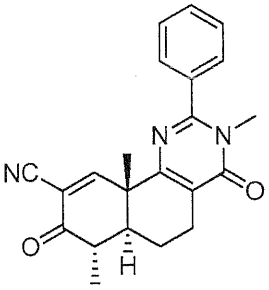

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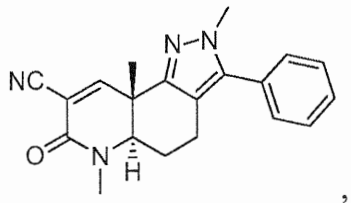
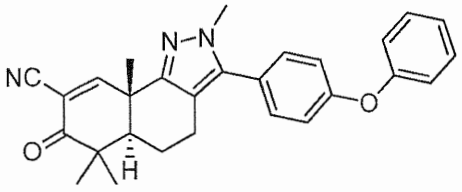
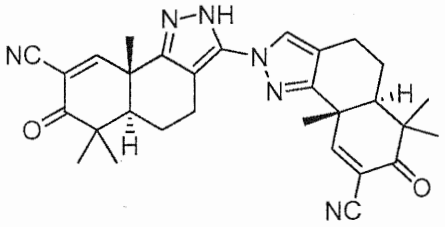
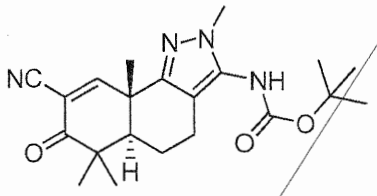
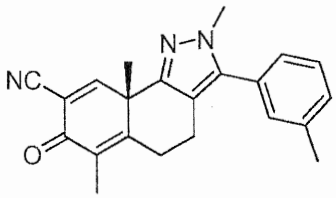
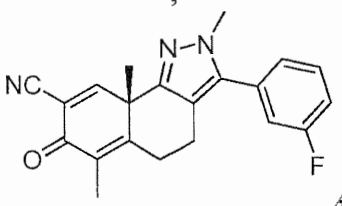
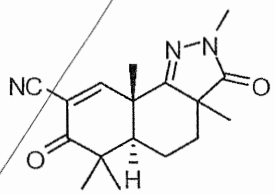
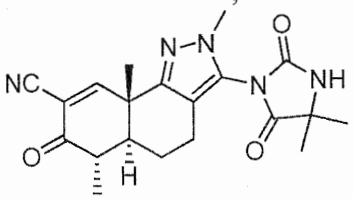
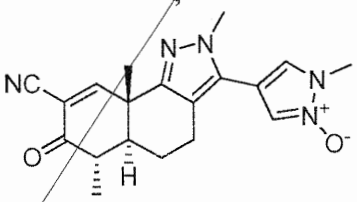
106. A compound of the formula:

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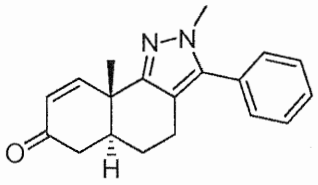
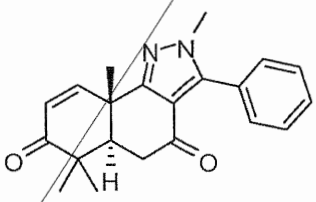
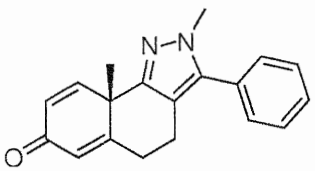
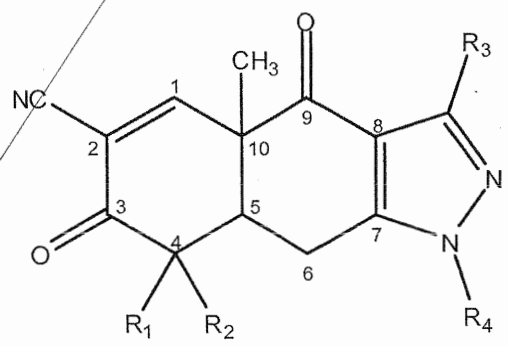
107. A compound of the formula:

, , or .

108. A compound of the formula:



(VII),

wherein:

$R_1$ and $R_2$ are each independently:

hydrogen, hydroxy or amino; or

alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups; or

$R_1$ and $R_2$ are taken together and are alkanediyl$_{(C\leq12)}$, alkenediyl$_{(C\leq12)}$, arenediyl$_{(C\leq12)}$, alkoxydiyl$_{(C\leq12)}$, alkenyloxydiyl$_{(C\leq12)}$, alkylaminodiyl$_{(C\leq12)}$, alkenylaminodiyl$_{(C\leq12)}$, or a substituted version of any of these groups;

$R_3$ is:

hydrogen, hydroxy or amino, or

alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, heterocycloalkyl$_{(C\leq12)}$, acyl$_{(C\leq12)}$, alkoxy$_{(C\leq12)}$, aryloxy$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, heteroaryloxy$_{(C\leq12)}$, acyloxy$_{(C\leq12)}$, alkylamino$_{(C\leq12)}$, dialkylamino$_{(C\leq12)}$, arylamino$_{(C\leq12)}$, aralkylamino$_{(C\leq12)}$, heteroarylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these groups; and

$R_4$ is:

hydrogen; or

alkyl$_{(C\leq12)}$, alkenyl$_{(C\leq12)}$, alkynyl$_{(C\leq12)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, acyl$_{(C\leq12)}$ or a substituted version of any of these groups;

or a pharmaceutically acceptable salt or tautomer thereof.

109. The compound of claim 108, wherein $R_1$ or $R_2$ is alkyl$_{(C\leq8)}$ or substituted alkyl$_{(C\leq8)}$.

110. The compound of claim 109, wherein $R_1$ and $R_2$ are alkyl$_{(C\leq8)}$.

111. The compound of claim 110, wherein $R_1$ and $R_2$ are methyl.

112. The compound according to any one of claims 108-111, wherein $R_3$ is hydrogen.

113. The compound according to any one of claims 108-112, wherein $R_4$ is aryl$_{(C\leq8)}$ or substituted aryl$_{(C\leq8)}$.

114. The compound of claim 113, wherein $R_4$ is $aryl_{(C\leq 8)}$.

115. The compound of claim 114, wherein $R_4$ is phenyl.

116. The compound according to any one of claims 108-112, wherein $R_4$ is $alkyl_{(C\leq 6)}$ or substituted $alkyl_{(C\leq 6)}$.

117. The compound of claim 116, wherein $R_4$ is $alkyl_{(C\leq 6)}$.

118. The compound of claim 117, wherein $R_4$ is *t*-butyl.

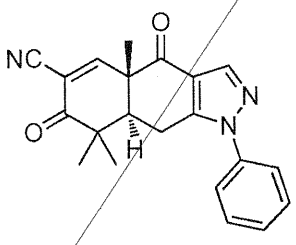
119. The compounds according to any one of claims 108-118, wherein carbon atom 10 is in the *R* configuration.

120. The compounds according to any one of claims 108-118, wherein carbon atom 10 is in the *S* configuration.

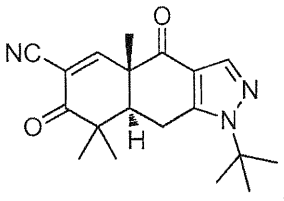
121. The compounds according to any one of claims 108-120, wherein carbon atom 5 is in the *R* configuration.

122. The compounds according to any one of claims 108-120, wherein carbon atom 5 is in the *S* configuration.

123. The compound of claim 108, further defined as:

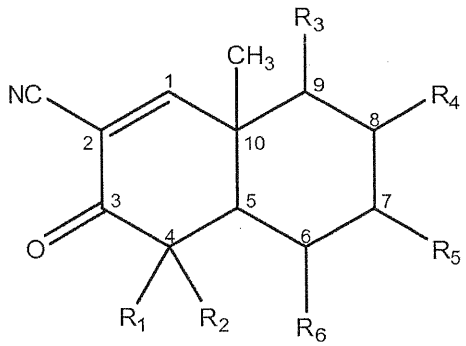



or




.

124. A compound of the formula:




(VIII),

wherein:

$R_1$ and $R_2$ are each independently:

hydrogen, hydroxy or amino; or

$alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; or

$R_1$ and $R_2$ are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, $arenediyl_{(C\leq12)}$, $alkoxydiyl_{(C\leq12)}$, $alkenyloxydiyl_{(C\leq12)}$, $alkylaminodiyl_{(C\leq12)}$, $alkenylaminodiyl_{(C\leq12)}$, or a substituted version of any of these groups; and

$R_3$, $R_4$, $R_5$ and $R_6$ are each independently:

hydrogen, hydroxy or amino, or

$alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, $alkynyl_{(C\leq12)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $heterocycloalkyl_{(C\leq12)}$, $acyl_{(C\leq12)}$, $alkoxy_{(C\leq12)}$, $aryloxy_{(C\leq12)}$, $heteroaryloxy_{(C\leq12)}$, $acyloxy_{(C\leq12)}$, $alkylamino_{(C\leq12)}$, $dialkylamino_{(C\leq12)}$, $arylamino_{(C\leq12)}$, $aralkylamino_{(C\leq12)}$, $heteroarylamino_{(C\leq12)}$, $amido_{(C\leq12)}$, or a substituted version of any of these groups; and

or a pharmaceutically acceptable salt or tautomer thereof.

125. The compound of claim 124, wherein $R_1$ or $R_2$ is $alkyl_{(C\leq8)}$ or substituted $alkyl_{(C\leq8)}$.

126. The compound of claim 125, wherein $R_1$ and $R_2$ are $alkyl_{(C\leq8)}$.

127. The compound of claim 126, wherein $R_1$ and $R_2$ are methyl.

128. The compound according to any one of claims 124-127, wherein $R_4$, $R_5$ and $R_6$ are hydrogen.

129. The compound according to any one of claims 124-128, wherein $R_3$ is hydroxy.

130. The compound according to any one of claims 124-128, wherein $R_4$ is alkoxy$_{(C\leq6)}$ or substituted alkoxy$_{(C\leq6)}$.

131. The compound of claim 130, wherein $R_4$ is substituted alkoxy$_{(C\leq6)}$.

132. The compound of claim 131, wherein $R_4$ is methoxymethoxy.

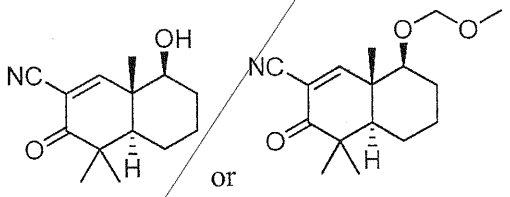
133. The compounds according to any one of claims 124-132, wherein carbon atom 10 is in the *R* configuration.

134. The compounds according to any one of claims 124-132, wherein carbon atom 10 is in the *S* configuration.

135. The compounds according to any one of claims 124-134, wherein carbon atom 5 is in the *R* configuration.

136. The compounds according to any one of claims 124-134, wherein carbon atom 5 is in the *S* configuration.

137. The compound of claim 124, further defined as:




138. A pharmaceutical composition comprising:

a) the compound according to any one of claims 1-137;

b) an optical isomer of the compound, wherein the optical isomer is the enantiomer of the compound; and

c) an excipient.

139. The pharmaceutical composition of claim 138, wherein the ratio of the amount of compound to the amount of optical isomer is approximately 1:1.

140. The pharmaceutical composition of claim 138, wherein the ratio of the amount of compound to the amount of optical isomer is approximately 5:1.

141. The pharmaceutical composition of claim 138, wherein the ratio of the amount of compound to the amount of optical isomer is approximately 10:1.

142. The pharmaceutical composition of claim 138, wherein the ratio of the amount of compound to the amount of optical isomer is approximately 20:1.

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