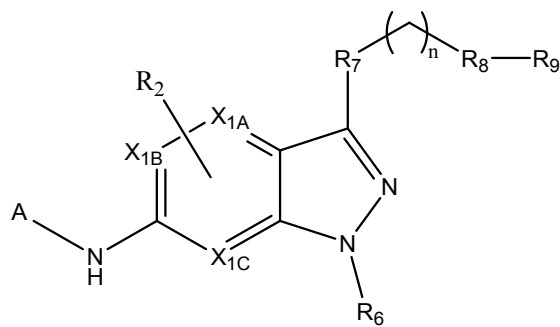


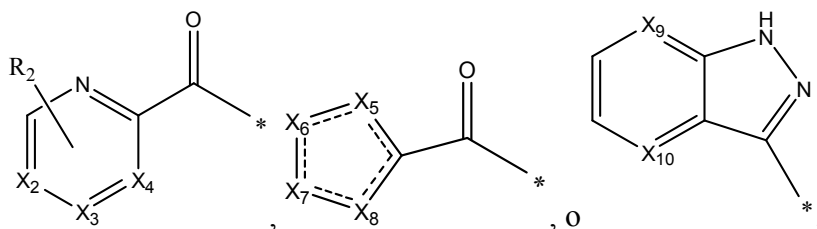
REIVINDICACIONES

1. Un compuesto de la siguiente fórmula:



donde:

A es elegido de



X_{1A} : CH, CR_1 , o N;

X_{1B} : CH, CR_1 , o N;

X_{1C} : CH, CR_1 , o N;

X_2 : CH, CR_1 , o N;

X_3 : CH, CR_1 , o N;

X_4 : CH, CR_1 , o N;

X_5 : CH, CR_1 , S, O, NH, NCH_3 , o N;

X_6 : CH, CR_1 , S, NH, o N;

X_7 : CH, CR_1 , o NH, N;

X_8 : CH, CR_1 , NH, N, S, o O;

X_9 : CH, CR_1 , o N;

X_{10} : CH, CR_1 , o N;

cada R_1 es independiente y elegido de H, D, OH, NH_2 , NR_3R_4 , OR_5 , F, CHF_2 , CF_3 , halogeno, F, alquilo, Me, CD_3 , cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

cada R_2 está opcionalmente presente, independiente y es elegido de H, D, OH, CONH_2 , NH_2 , NR_3R_4 , OR_5 , F, CHF_2 , CF_3 , halógeno, F, alquilo, Me, O-Me, alquil-O-Me, CD_3 , cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

R_3 es elegido de H, alquilo, alcoxi, o OH;

R_4 es elegido de H, alquilo, alcoxi, o OH;

R_5 es elegido de H, o alquilo;

R_6 es H, CH_3 o CD_3 ;

R_7 es O o $-\text{CO}-$;

R_8 es un enlace, alquilo, $-\text{NH}-$, $-\text{O}-$, alquil-O-;

R_9 está sustituido o no sustituido y es elegido entre H, heteroarilo, arilo, heterocicloalquilo, heterociclo que contiene oxígeno, cicloalquilo, CD_3 , CF_2 , $\text{CD}_2\text{-CH}_3$, alquilo, CH_3 ,

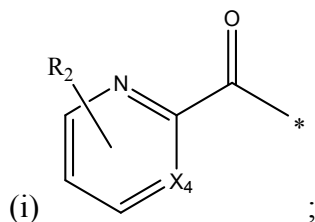
n es 0-6;

en el que cada heteroarilo, arilo, heterocicloalquilo, cicloalquilo, cuando se eligen, pueden estar opcionalmente sustituido con uno o más de los siguientes: H, D, OH, CONH_2 , NH_2 , NR_3R_4 , OR_5 , F, CHF_2 , CF_3 , halógeno, F, alquilo, Me, O-Me, alquil-O-Me, CD_3 , CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo.

2. El compuesto de la reivindicación 1,

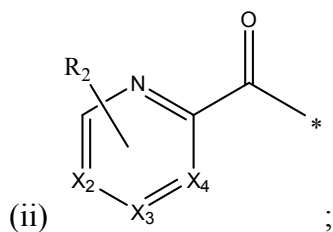
donde A es:



en que

X_4 es CH , o CR_1 ; y

R_1 es NH_2 , F, o OH; o



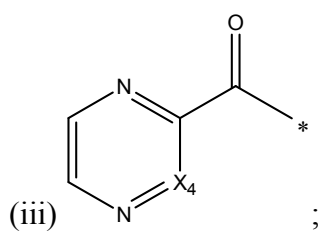
en que

X_2 : CH, o CR_1 ;

X_3 : CH, o CR_1 ;

X_4 : CH, o CR_1 ; y

R_1 es independientemente CH_3 , F, Cl, NH_2 , o OH; o

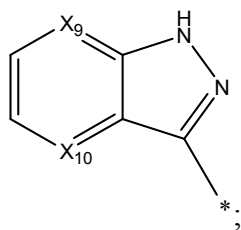


en que

X_4 : CH, o CR_1 ; y

R_1 NH_2 , o OH.

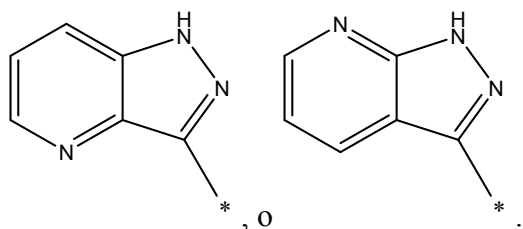
3. El compuesto de la reivindicación 1, en donde A es:



X_9 es CH o N; y

X_{10} es CH o N.

4. El compuesto de la reivindicación 3, donde A es:



5. El compuesto de la reivindicación 1, donde X_1 es C-Cl.

6. El compuesto de la reivindicación 1, en donde

R_8 es un enlace, alquilo, o alquil-O-;

R_7 es H, alquilo, CH_3 , cicloalquilo, heterocicloalquilo, arilo, heteroarilo, CF_3 , CD_2-CH_3 , CD_3 .

7. El compuesto de la reivindicación 6, en donde:

heteroarilo está sustituido o no sustituido y se elige entre isoxazol o piridina;

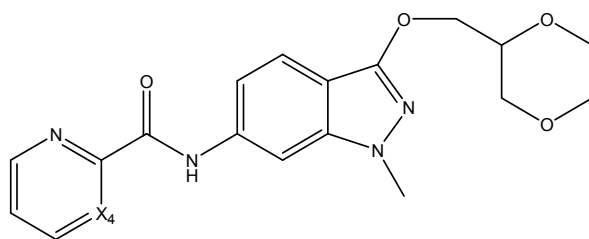
cicloalquilo está sustituido o no sustituido y se elige entre ciclopropilo, ciclobutilo;

heterocicloalquilo está sustituido o no sustituido y se elige entre tetrahidropirano, osetano, dioxano, tetrahidrofurano, tetrahidro-tiopirano-dióxido, tetrahidro-tiofeno-dióxido, bicicloheteroarilo, morfolina; y

arilo es fenilo sustituido o no sustituido.

8. El compuesto de una de las reivindicaciones 1, 2 o 7, en donde el heterocicloalquilo es 1,4-dioxano, tetrahidropirano, dimetil-tetrahidropirano, tetrahidrofurano, dimetil-tetrahidrofurano.

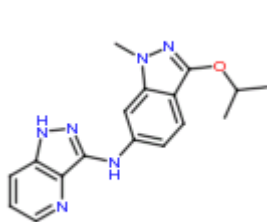
9. El compuesto de la reivindicación 1, de la siguiente fórmula:



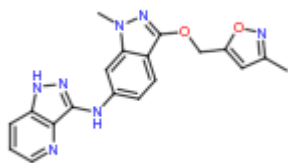
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en que X_4 es CH o C-NH₂.

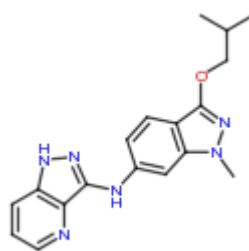
10. El compuesto de la reivindicación 1, de la siguiente fórmula:



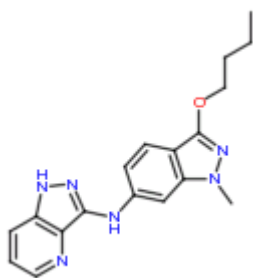
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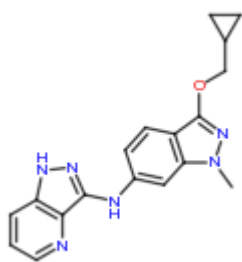
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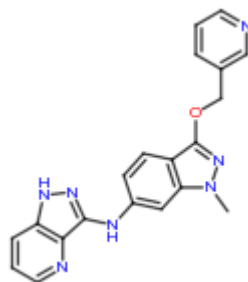
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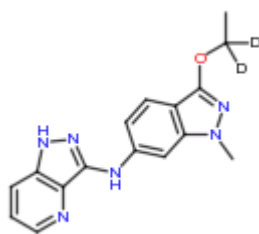
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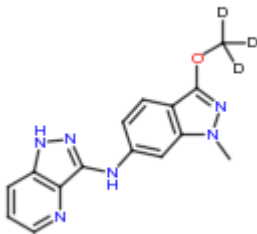
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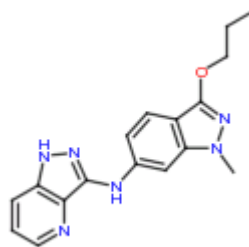
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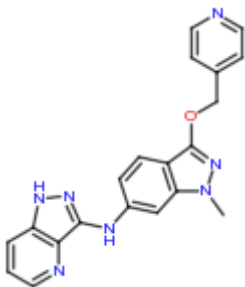
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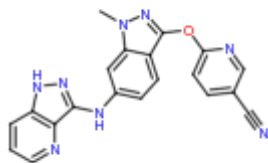
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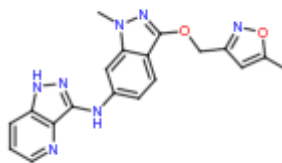
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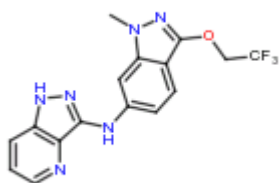
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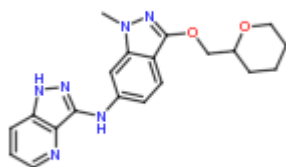
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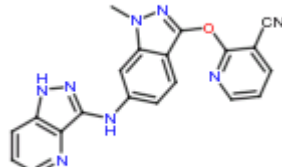
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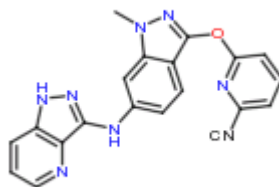
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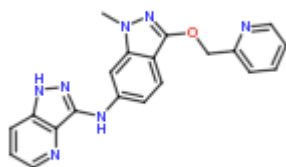
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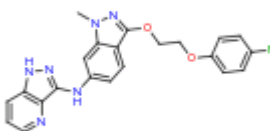
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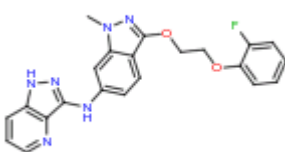
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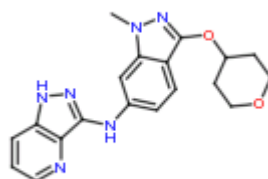
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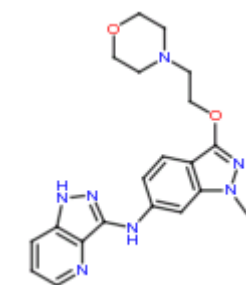
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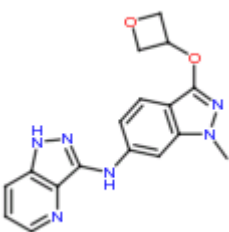
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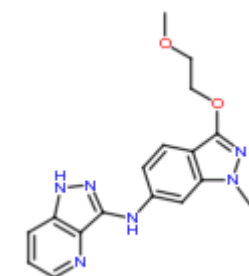
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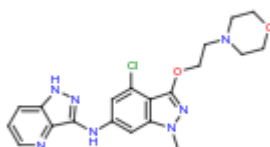
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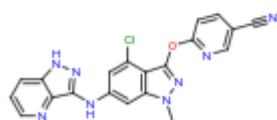
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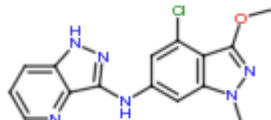
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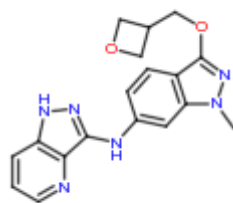
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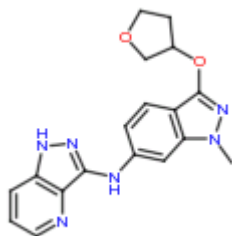
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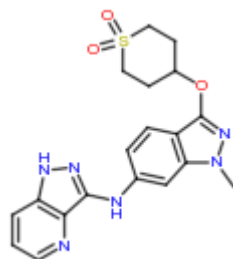
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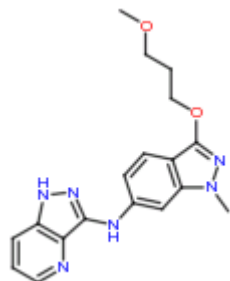
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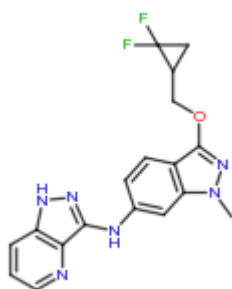
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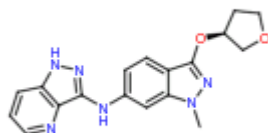
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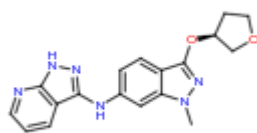
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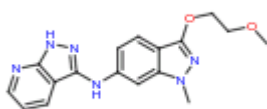
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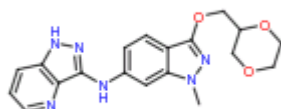
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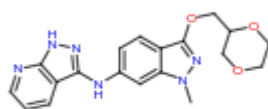
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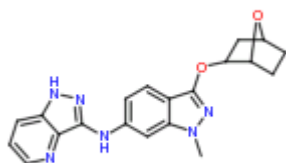
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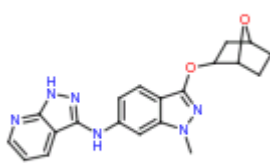
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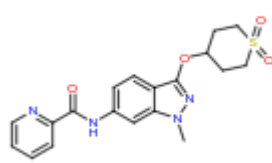
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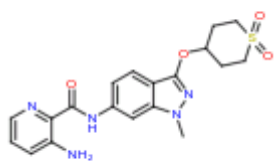
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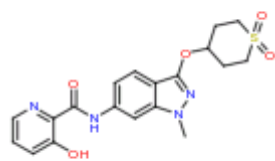
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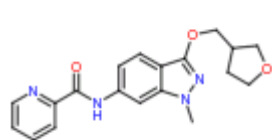
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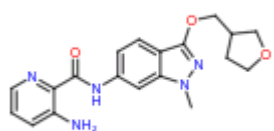
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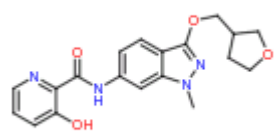
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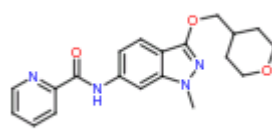
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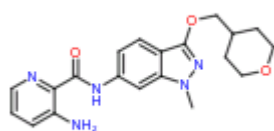
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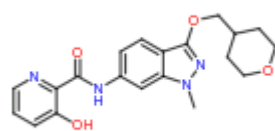
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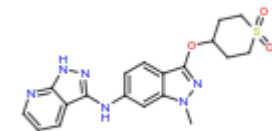
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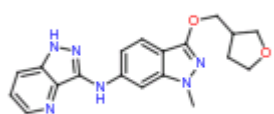
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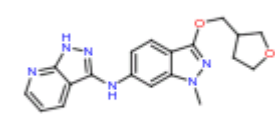
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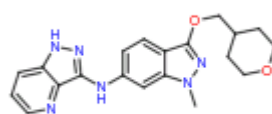
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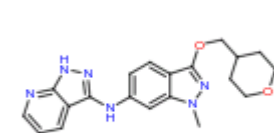
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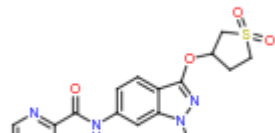
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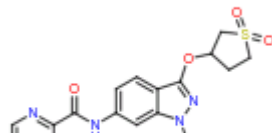
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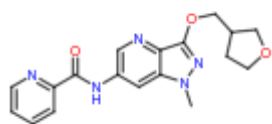
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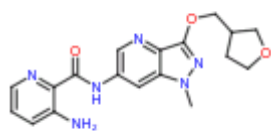
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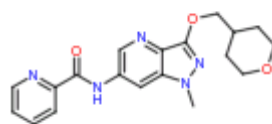
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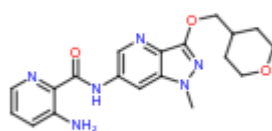
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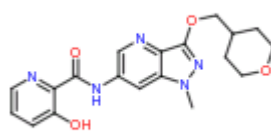
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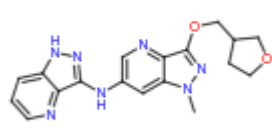
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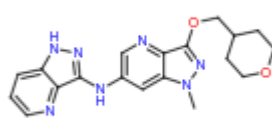
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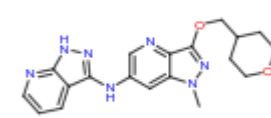
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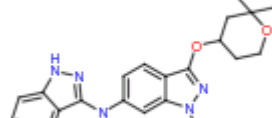
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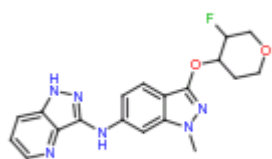
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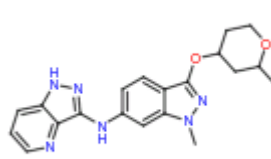
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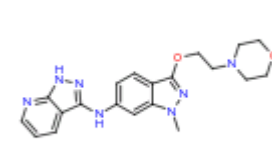
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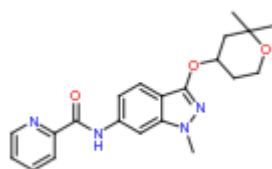
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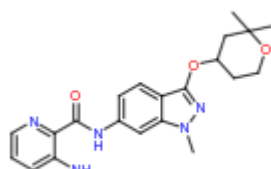
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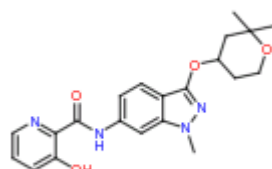
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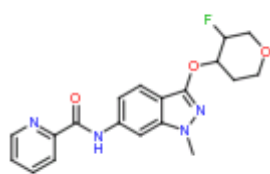
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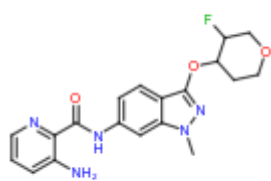
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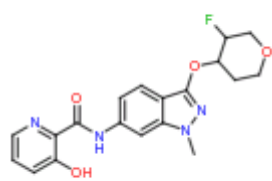
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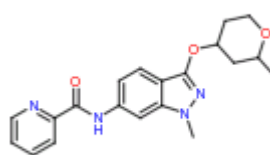
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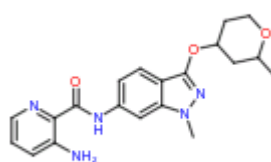
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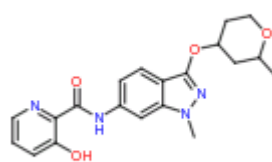
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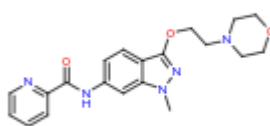
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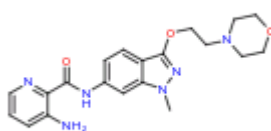
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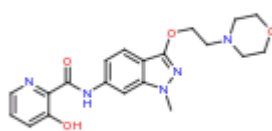
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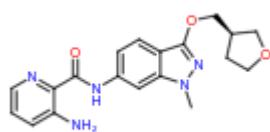
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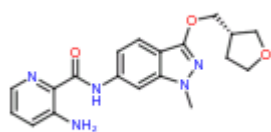
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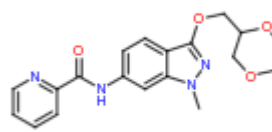
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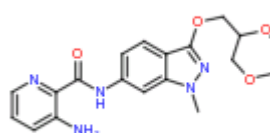
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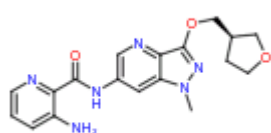
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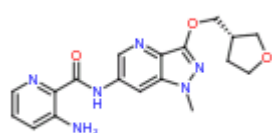
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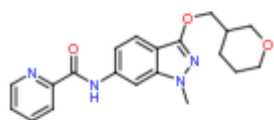
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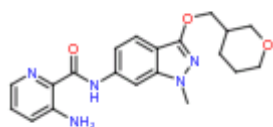
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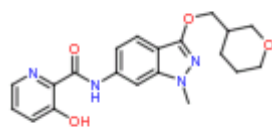
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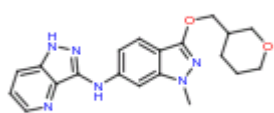
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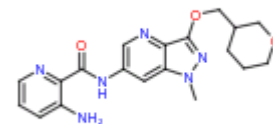
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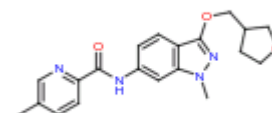
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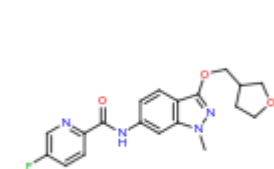
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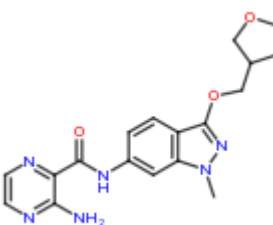
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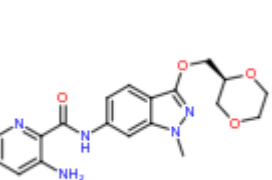
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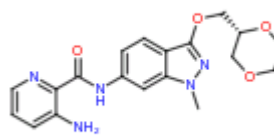
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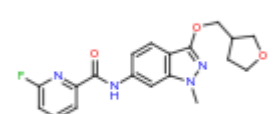
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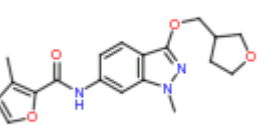
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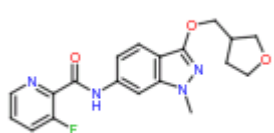
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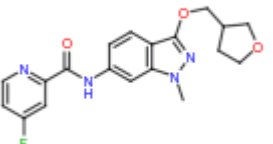
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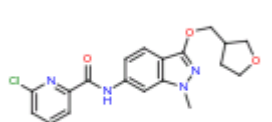
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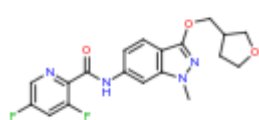
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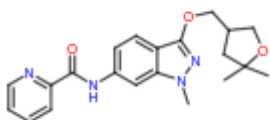
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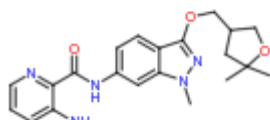
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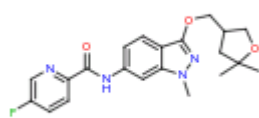
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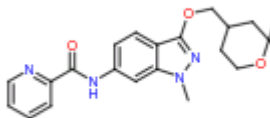
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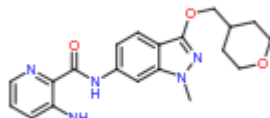
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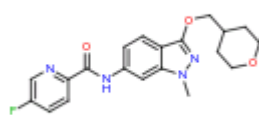
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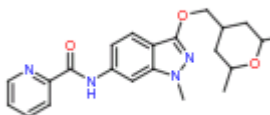
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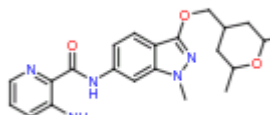
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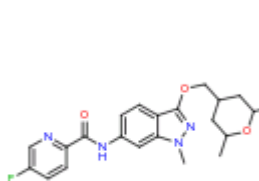
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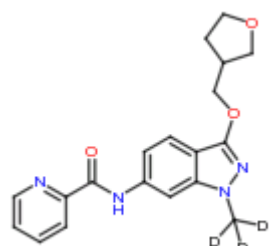
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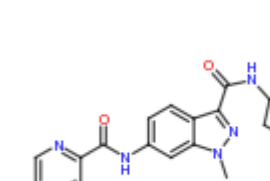
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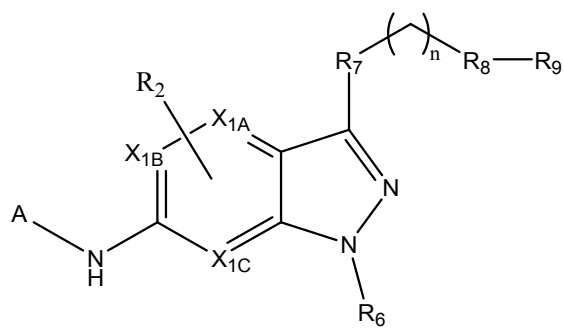


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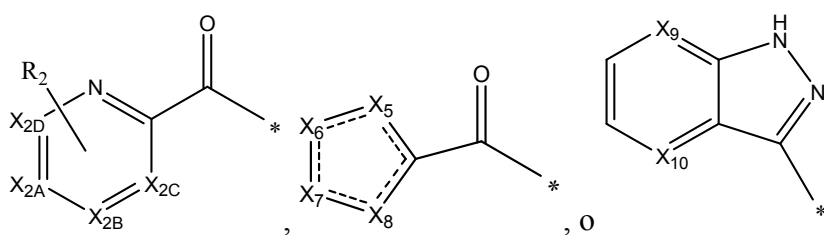
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11. Una composición farmacéutica que comprende un compuesto que tiene una estructura representada por un compuesto de la siguiente fórmula:



en que

A es elegido de:



X_{1A} : CH, CR₁, o N;

X_{1B} : CH, CR₁, o N;

X_{1C} : CH, CR₁, o N;

X_{2A} : CH, CR₁, N, NH₂;

X_{2B} : CH, CR₁, N, NH₂;

X_{2C} : CH, CR₁, N, NH₂;

X_{2D} : CH, CR₁;

X_5 : CH, CR₁, S, O, NH, NCH₃, o N;

X_6 : CH, CR₁, S, NH, o N;

X_7 : CH, CR₁, o NH, N;

X_8 : CH, CR₁, NH, N, S, o O;

X_9 : CH, CR₁, o N;

X_{10} : CH, CR₁, o N;

cada R₁ es independiente y se elige entre H, D, OH, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃, halógeno,

F, alquilo, Me, CD₃, cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

cada R₂ es independiente y se elige entre H, D, OH, CONH₂, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃,

halógeno, F, alquilo, Me, O-Me, alquil-O-Me, CD₃, cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

R₃ es elegido de H, alquilo, alcoxi, o OH;

R₄ es elegido de H, alquilo, alcoxi, o OH;

R₅ es elegido de H, o alquilo;

R₆ es H, CH₃ o CD₃;

R₇ es O o -CO-;

R₈ es un enlace, alquilo, -NH-, -O-, alquil-O-;

R₉ está sustituido o no sustituido y se elige entre H, heteroarilo, arilo, heterocicloalquilo, heterociclo que contiene oxígeno, cicloalquilo, CD₃, CF₂, CD₂-CH₃, alquilo, CH₃,

n es 0-6;

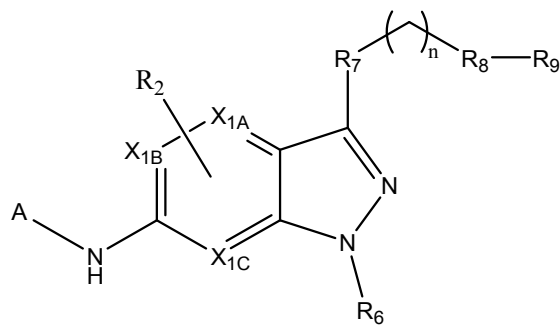
en el que cada heteroarilo, arilo, heterocicloalquilo, cicloalquilo, cuando se elige, puede estar opcionalmente sustituido con uno o más de los siguientes: H, D, OH, CONH₂, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃, halógeno, F, alquilo, Me, O-Me, alquil-O-Me, CD₃, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo, y un vehículo farmacéuticamente aceptable.

12. Una composición farmacéutica que comprende un compuesto de una de las reivindicaciones 1-10, o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo, y un vehículo farmacéuticamente aceptable.

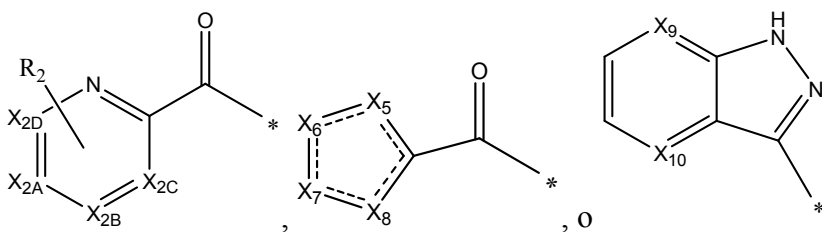
13. Una composición farmacéutica que comprende un compuesto de la reivindicación 10, o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo, y un vehículo farmacéuticamente aceptable.

14. Un método para la fabricación de un medicamento para potenciar la actividad del receptor mGluR4 en un mamífero que comprende combinar un compuesto que tiene una estructura representada por un compuesto de la siguiente fórmula:



donde:

A es elegido de



X_{1A} : CH, CR₁, o N;

X_{1B} : CH, CR₁, o N;

X_{1C} : CH, CR₁, o N;

X_{2A} : CH, CR₁, N, NH₂;

X_{2B} : CH, CR₁, N, NH₂;

X_{2C} : CH, CR₁, N, NH₂;

X_{2D} : CH, CR₁;

X_5 : CH, CR₁, S, O, NH, NCH₃, o N;

X_6 : CH, CR₁, S, NH, o N;

X_7 : CH, CR₁, or NH, N;

X_8 : CH, CR₁, NH, N, S, o O;

X_9 : CH, CR₁, o N;

X_{10} : CH, CR₁, o N;

cada R₁ es independiente y se elige entre H, D, OH, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃, halógeno,

F, alquilo, Me, CD₃, cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

cada R₂ es independiente y se elige entre H, D, OH, CONH₂, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃,

halogeno, F, alquilo, Me, O-Me, alquil-O-Me, CD₃, cicloalquilo, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

R₃ es elegido de H, alquilo, alcoxi, o OH;

R₄ es elegido de H, alquilo, alcoxi, o OH;

R₅ es elegido de H, o alquilo;

R₆ es H, CH₃ o CD₃;

R₇ es O o -CO-;

R₈ es un enlace, alquilo, -NH-, -O-, alquil-O-;

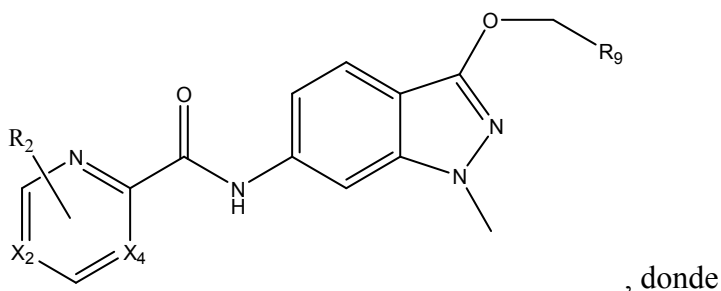
R₉ está sustituido o no sustituido y se elige entre H, heteroarilo, arilo, heterocicloalquilo, heterociclo que contiene oxígeno, cicloalquilo, CD₃, CF₂, CD₂-CH₃, alquilo, CH₃,

n es 0-6;

en el que cada heteroarilo, arilo, heterocicloalquilo, cicloalquilo, cuando se elige, puede estar opcionalmente sustituido con uno o más de los siguientes: H, D, OH, CONH₂, NH₂, NR₃R₄, OR₅, F, CHF₂, CF₃, halogeno, F, alquilo, Me, O-Me, alquil-O-Me, CD₃, CN, metoxi, alcoxi, alquil-metoxi, o alquil-alcoxi;

o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo, con un vehículo farmacéuticamente aceptable.

15. Un compuesto de la reivindicación 1, de la siguiente fórmula:



X₂ es CH o CR₁;

X₄ es CH o CR₁;

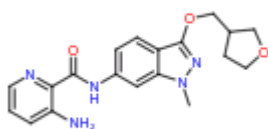
R₁ es NH₂ o F;

R₂ está opcionalmente presente, y se elige de flúor;

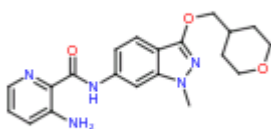
R₉ es heteroarilo, arilo, heterocicloalquilo, heterociclo que contiene oxígeno, cicloalquilo.

16. El compuesto de la reivindicación 15, en donde el heterocicloalquilo es 1,4-dioxano, tetrahidropirano, dimetil-tetrahidropirano, tetrahydrofurano, dimetil-tetrahydrofurano.

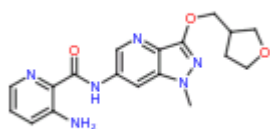
17. Un compuesto de la reivindicación 1, de la siguiente fórmula:



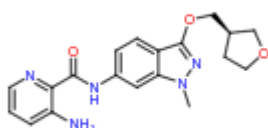
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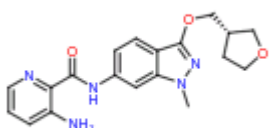
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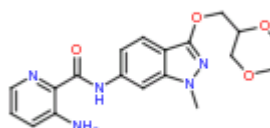
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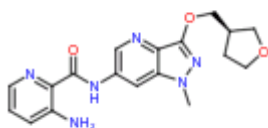
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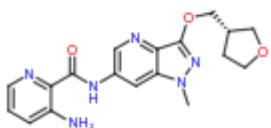
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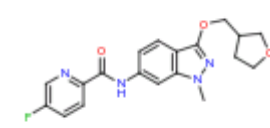
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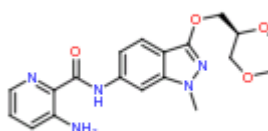
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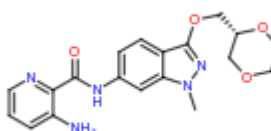
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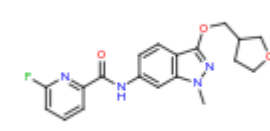
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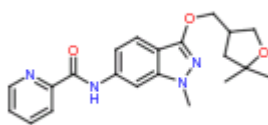
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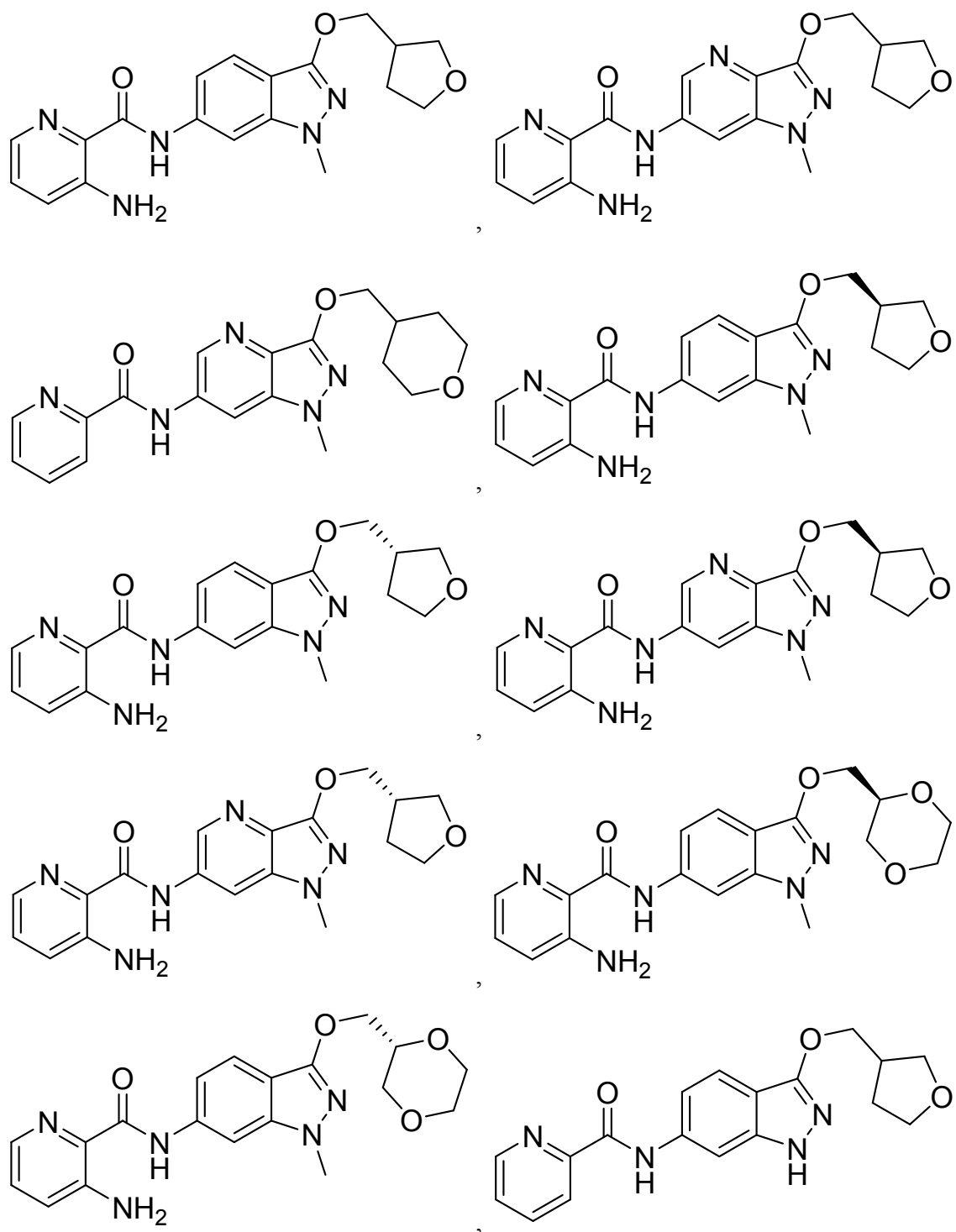


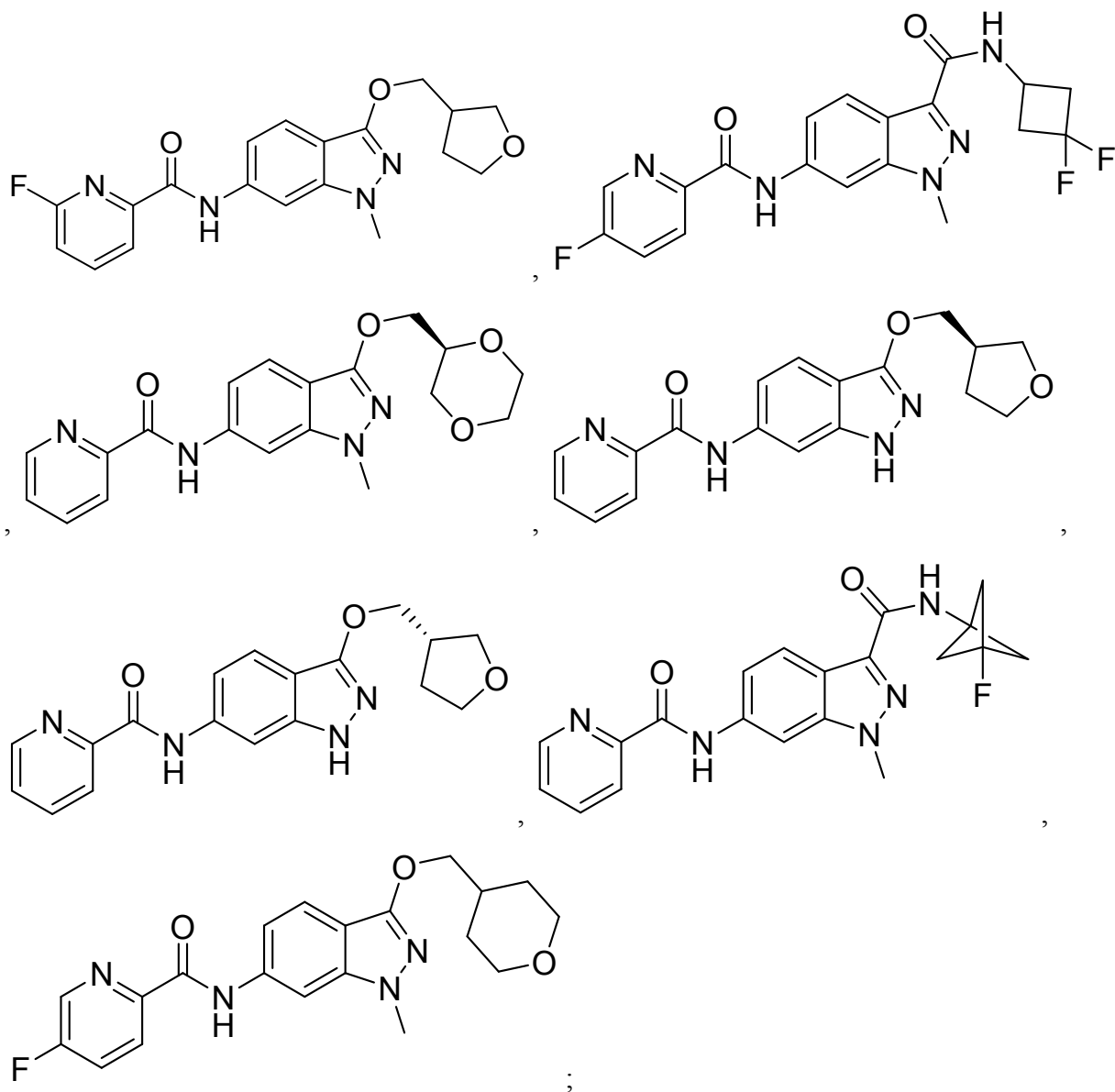
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;

o una sal farmacéuticamente aceptable del mismo

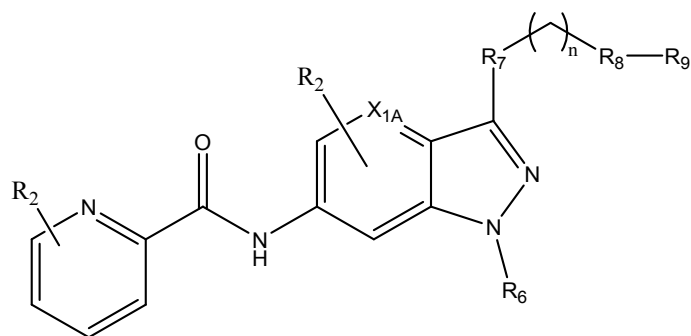
18. Un compuesto de la reivindicación 1, de la siguiente fórmula:





o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo.

19. Un compuesto de la siguiente fórmula:



donde:

X_{1A} : CH, CR_1 , o N;

cada R_2 está opcionalmente presente, independiente y se elige de H, D, NH_2 , CF_3 , halogeno, F, alquilo, Me, o CD_3 ;

R_6 es H, CH_3 o CD_3 ;

R_7 es O o $-CO-$;

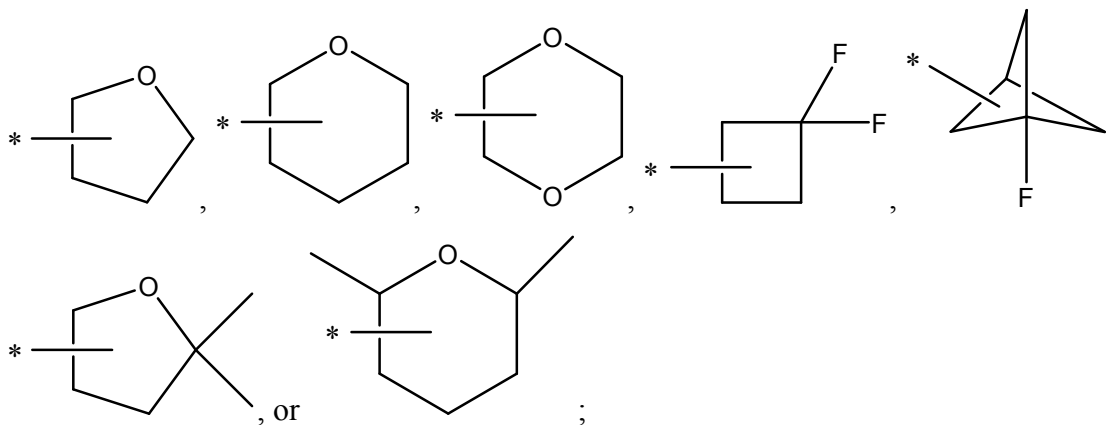
R_8 es un enlace, alquilo, $-NH-$, $-O-$, alquil- $O-$;

R_9 está sustituido o no sustituido y es elegido entre tetrahydrofurano, 1,4- dioxano, ciclobutilo, tetrahidropirano; y

n es 0-6;

o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo.

20. Un compuesto de la reivindicación 17, en donde R_9 es:



o una sal farmacéuticamente aceptable del mismo o un derivado farmacéuticamente aceptable del mismo.