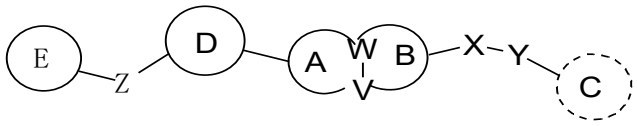
Claims

1. A compound represented by formula (I) below or a racemate, a stereoisomer, a tautomer, an isotopically labeled compound, a nitrogen oxide, a solvate, a polymorph, or a pharmaceutically acceptable salt thereof:

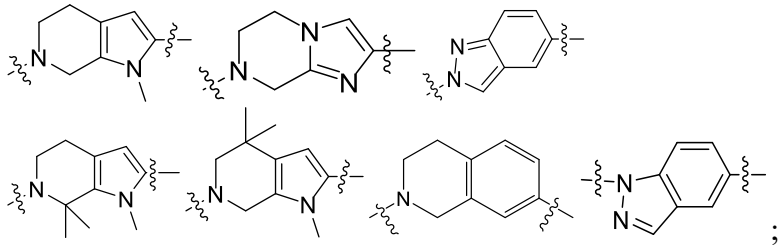


(I)

wherein,

ring A and ring B constitute a fused ring with W and V as connection sites,

and ring A and ring B constitute a fused ring as follows:



;

wherein，ring A is unsubstituted or optionally substituted with one, two or more Rc；ring B is unsubstituted or optionally substituted with one, two or more Rd;

Rc and Rd are identical or different and are each independently selected from halogen, C_{1-20} alkyl;

X is -C(=O)-;

Y is a chemical bond, C_{1-20} alkoxy, C_{1-20} alkyl, -NH-, -N(C_{1-20} alkyl)-, -NH(C_{1-20} alkyl) or -NH(C_{1-20} alkoxy), wherein the C_{1-20} alkoxy, the C_{1-20} alkyl and the C_{1-20} alkoxy and C_{1-20} alkyl in the "-N(C_{1-20} alkyl)-, NH(C_{1-20} alkyl) or -NH(C_{1-20} alkoxy)" can be unsubstituted or optionally substituted with one, two or more Rs;

C can be present or absent;

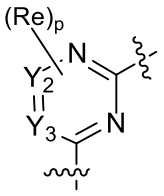
provided that when Y is C_{1-20} alkoxy, C_{1-20} alkyl, -NH(C_{1-20} alkyl) or -NH(C_{1-20} alkoxy), C is absent;

when Y is a chemical bond, C is selected from the following groups unsubstituted or optionally substituted with one, two or more Ra: 3-20 membered heterocyclyl;

when Y is-NH- or -N(C_{1-20} alkyl)-, C is selected from the following groups unsubstituted or optionally substituted with one, two or more Rb: C_{1-20} alkyl, 3-20 membered heterocyclyl, 5-20

membered heteroaryl, C_{3-20} cycloalkyl;

Ra and Rb are identical or different and are each independently selected from halogen, CN, C_{1-20} alkyl unsubstituted or optionally substituted with one, two or more Rs, OH, 5-20 membered heteroaryl and 5-20 membered haloheteroaryl;

ring D is , and the ring A is connected to the ring D through an N atom;

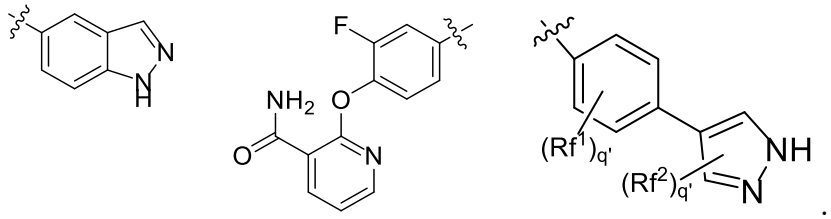
Y_2 and Y_3 are each independently C or N, and Y_2 and Y_3 are not both N at the same time; p is 0, 1, 2, 3 or 4;

Re is selected from halogen, CN, OH and the following groups unsubstituted or optionally substituted with one, two or more Rs: C_{1-20} alkyl, C_{1-20} alkoxy, 3-6 membered heterocyclyl;

or when at least two Re substitutions are present on the ring D, adjacent two Re, together with an atom on the ring D to which they are connected via a bond, form C_{3-6} cycloalkyl, 3-6 membered heterocyclyl or 5-12 membered heteroaryl;

Rs is selected from halogen, CN, OH, C_{1-20} alkyl, C_{1-20} alkoxy;

Z is -NH-;

ring E is .

Rf^1,Rf^2 are identical or different and are each independently selected from halogen, CN, OH;

q', when present, is each independently 0, 1 or 2.

.

2. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to claim 1, wherein:

X is -C(=O)-;

Y is, a chemical bond, C_{1-6} alkoxy, C_{1-6} alkyl, -NH-, or -N(C_{1-6} alkyl)-, -NH(C_{1-6} alkyl) or -NH(C_{1-6} alkoxy), wherein the C_{1-6} alkoxy, the C_{1-6} alkyl, and the C_{1-6} alkoxy and C_{1-6} alkyl in the "-N(C_{1-6} alkyl)-, -NH(C_{1-6} alkyl) or -NH(C_{1-6} alkoxy)" can be unsubstituted or optionally substituted with one,

two or more Rs;

when Y is a chemical bond, 

is selected from the following groups unsubstituted or optionally substituted with one, two or more Ra: 3-6 membered heterocyclyl;

Ra is selected from F, Cl, CN, OH, and C_{1-6} alkyl optionally substituted with one, two or more halogens;

when Y is -NH- or -N(C_{1-6} alkyl)-, 

is selected from the following groups unsubstituted or optionally substituted with one, two or more Rb: C_{3-6} cycloalkyl, C_{1-6} alkyl, 3-6 membered heterocyclyl and 5-12 membered heteroaryl;

Rb is selected from F, Cl, CN, OH, and 5-12 membered heteroaryl substituted with F or Cl;

when Y is a chemical bond, X is connected to a heteroatom of the 3-6 membered heterocyclyl represented by 

;

Rc and Rd are identical or different and are each independently selected from F, Cl,or C_{1-6} alkyl;

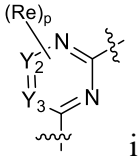
Re is selected from halogen, CN, OH, and the following groups unsubstituted or optionally substituted with one, two or more Rs: C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered heterocyclyl;

or when at least two Re substitutions are present on the ring D, adjacent two Re, together with an atom on the ring D to which they are connected via a bond, form C_{3-6} cycloalkyl, 3-6 membered heterocyclyl or 5-12 membered heteroaryl;

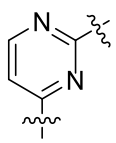
Rs is selected from halogen, CN, OH, C_{1-6} alkyl, and C_{1-6} alkoxy

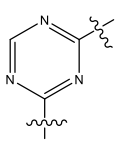
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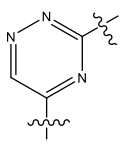
3. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to claims 1-2, wherein:

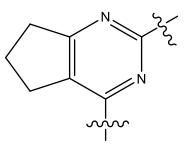


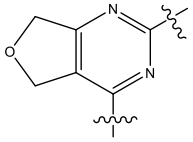
is the following group unsubstituted or optionally substituted with one, two or more Re:

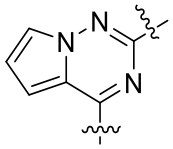


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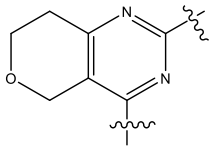
, 

, 

, 

, 

or



;

Re is selected from halogen, CN, OH and the following groups unsubstituted or optionally substituted with one, two or more Rs: C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered heterocyclyl.

4. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to claims 1-3, wherein:

X is -C(=O)-;

Y is a chemical bond, -NH- or -N(methyl)-,

when Y is a chemical bond, 

is selected from the following groups: azetidinyl unsubstituted or substituted with one, two or more F; azetidinyl unsubstituted or substituted with one, two or more CN; azetidinyl unsubstituted or substituted with one, two or more CHF_2; azetidinyl unsubstituted or substituted with one, two or more CF_3; and azolidinyl unsubstituted or substituted with F and/or OH;

when Y is -NH- or -N(methyl)-, 

is selected from the following groups: cyclobutyl unsubstituted or substituted with one, two or more F; isopropyl; pyridazinyl; azetidinyl unsubstituted or substituted with one, two or more CN; azolidinyl substituted with F and/or OH; ethyl unsubstituted or substituted with one, two or more F; -N-chloropyridin-piperidinyl; and pyridinyl unsubstituted or substituted with one, two or more F;

when Y is a chemical bond, X is connected to a heteroatom of the heterocyclyl represented by 

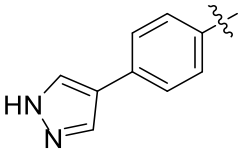
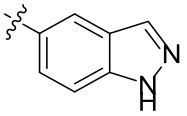
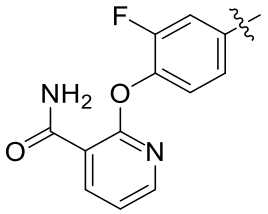
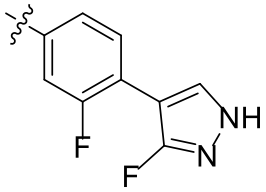
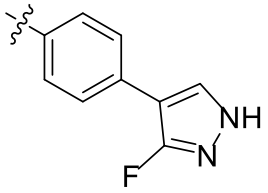
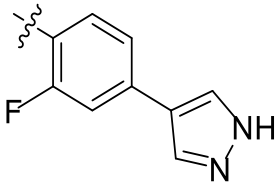
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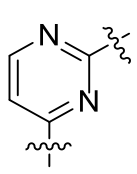
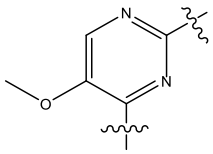
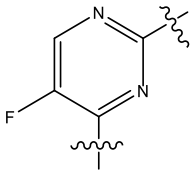
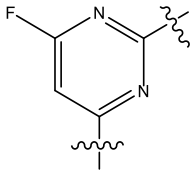
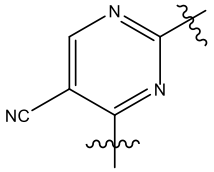
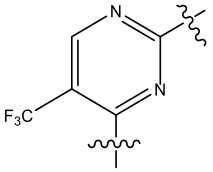
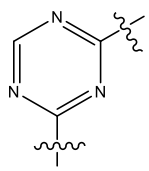
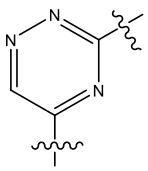
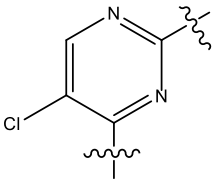
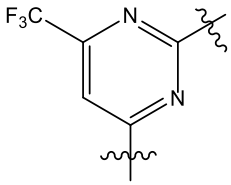
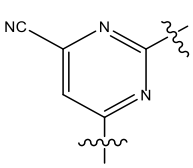
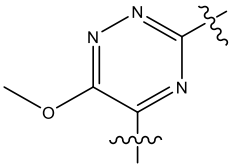
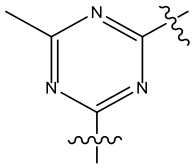
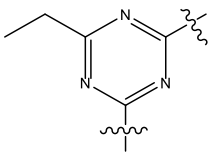
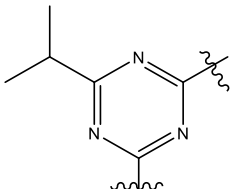
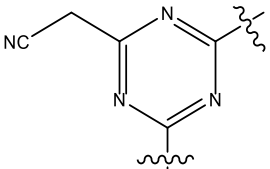
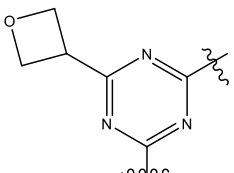
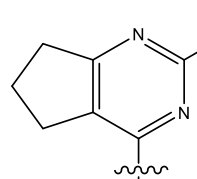
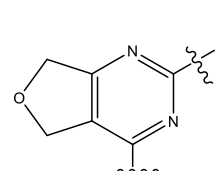
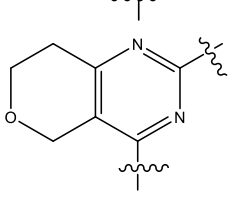
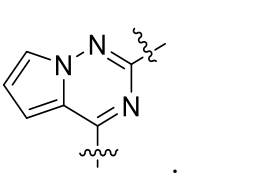
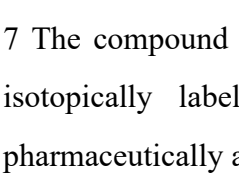
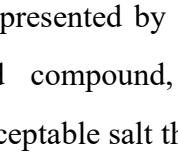
5. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-4, wherein Y is methyl, ethyl, propyl, butyl, $-CH_2CF_3$, $-NH-CH_2CF_3$, $-NHCH(CH_3)_2$, $-OCH_2CF_3$ or $-OCH_2CH_3$;

6. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the

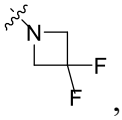
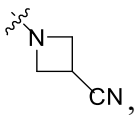
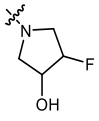
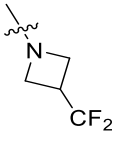
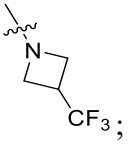
pharmaceutically acceptable salt thereof according to any one of claims 1-5,

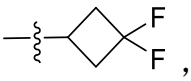
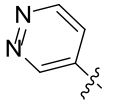
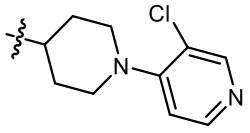
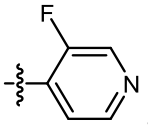
wherein，the ring E is







;

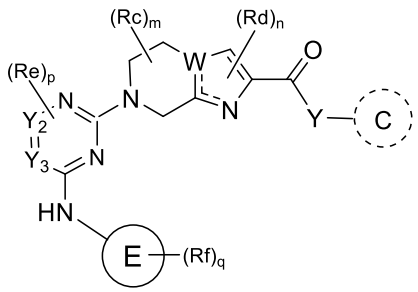
ring D is as follows: , , , ,
, , , , ,
, , , , ,
, , , , ,
, , , , ,
, .

7 The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-6,

wherein，when Y is a chemical bond,  is selected from the following groups: , , ,  and ;

when Y is -NH-,  is selected from the following group: , ,  and .

8. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-7, wherein the formula I is further selected from the following formula III:



(III)

wherein, W is selected from N and C;

a double line comprising a solid line and a dotted line represents a single bond or a double bond;

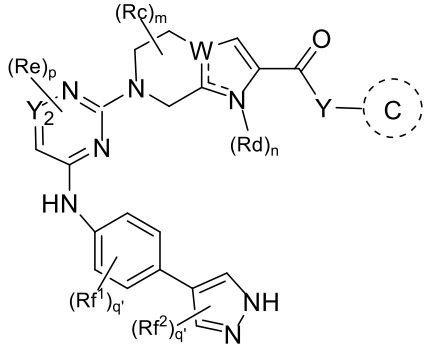
m is 0, 1, 2, 3 or 4;

n is 0, 1, 2 or 3;

q is 0;

the other groups are as defined in any one of claims 1-7.

9. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-8, wherein the formula I is further selected from the following formula IV:



(IV)

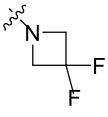
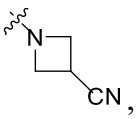
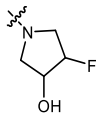
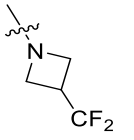
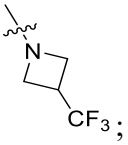
wherein, W is selected from N and C;

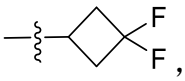
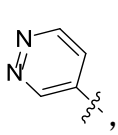
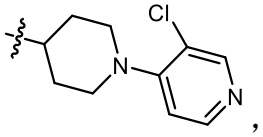
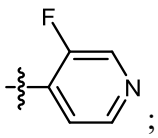
Y_2 is selected from N and C;

a double line comprising a solid line and a dotted line represents a single bond or a double bond;

Y is a chemical bond, -NH-, or -N(C_{1-6} alkyl)- or -NH(C_{1-6} alkyl);

the C_{1-6} alkyl in the "-N(C_{1-6} alkyl)- or -NH(C_{1-6} alkyl)" is unsubstituted or optionally substituted with one, two or more halogens;

when Y is a chemical bond, C is selected from the following groups: , , ,  and ;

when Y is -NH- or -N(C_{1-6} alkyl)-, C is selected from the following group: , , , ;

when Y is -NH(C_{1-6} alkyl), C is absent;

Rc and Rd are identical or different and are each independently selected from C_{1-6} alkyl;

Rs is selected from halogen, CN, OH, C_{1-6} alkyl, C_{1-6} alkoxy;

Rf^1 and Rf^2 are identical or different and are each independently selected from halogen, CN and OH;

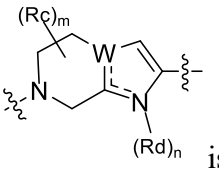
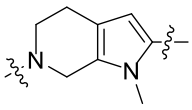
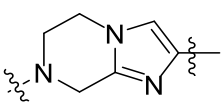
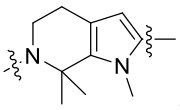
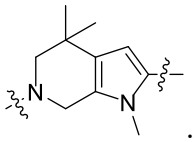
m is 0, 1 or 2;

n is 0, 1 or 2;

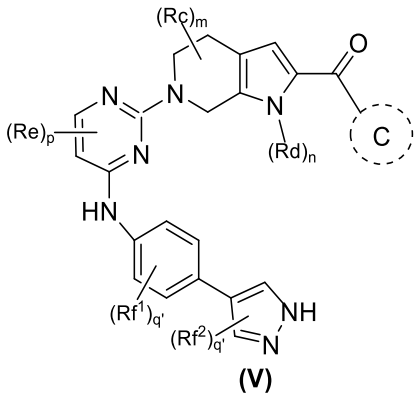
p is 0, 1 or 2;

q', when present, is each independently 0, 1 or 2.

10.The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 9,

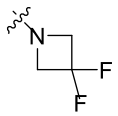
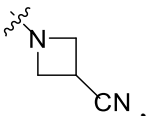
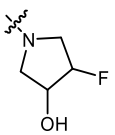
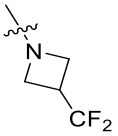
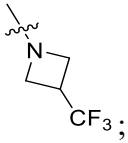
wherein，  is selected from  ,  ,  , and  .

11. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-9, wherein the formula I is further selected from the following formula V:



(V)

wherein,

C is selected from the following groups:  ,  ,  ,  and  ;

Rc and Rd are identical or different and are each independently selected from C_{1-6} alkyl;

Rs is selected from halogen, CN, OH, C_{1-6} alkyl, C_{1-6} alkoxy;

Rf^1 and Rf^2 are identical or different and are each independently selected from halogen, CN and OH;

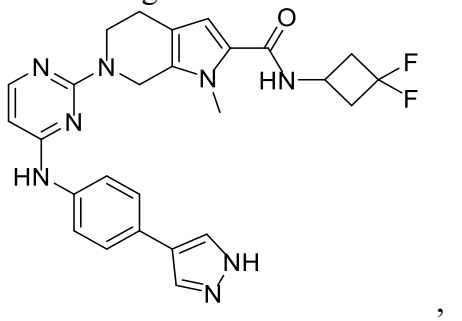
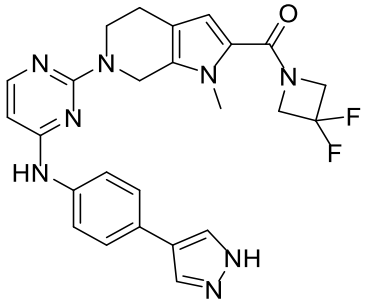
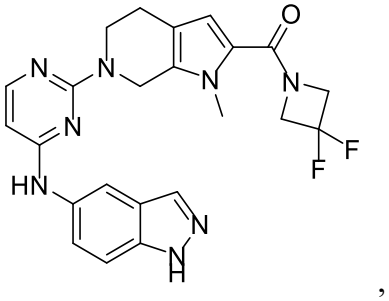
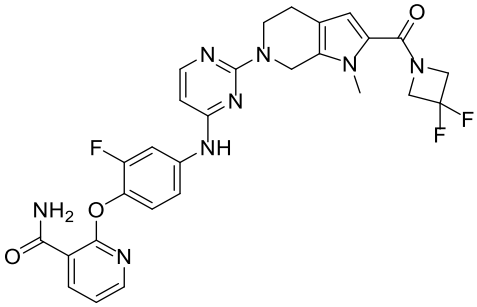
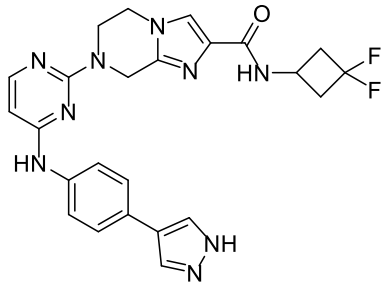
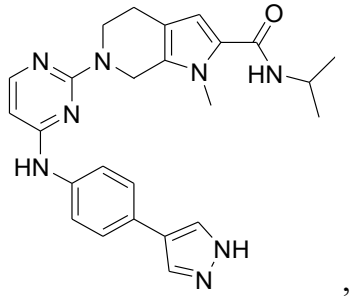
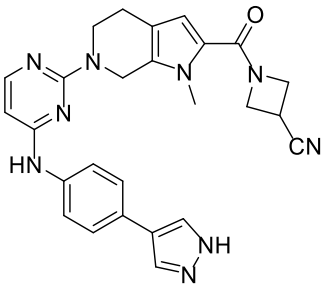
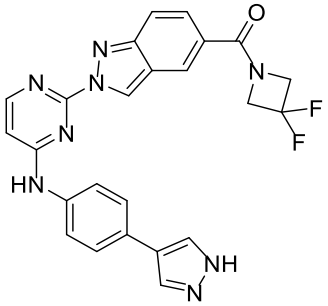
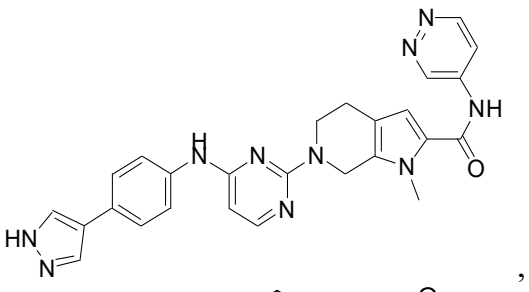
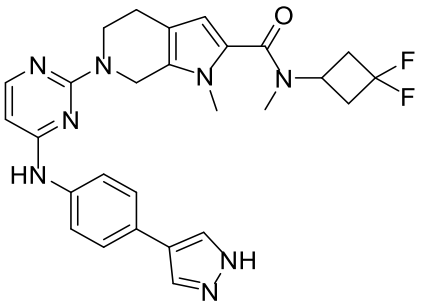
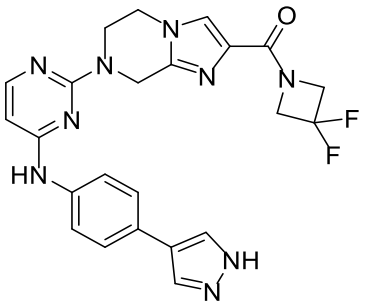
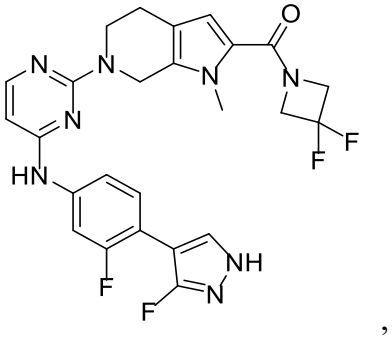
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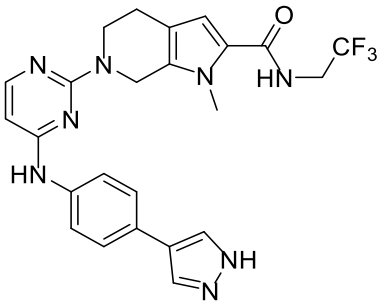
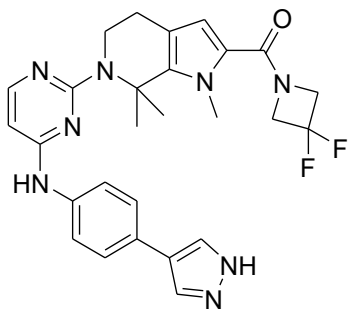
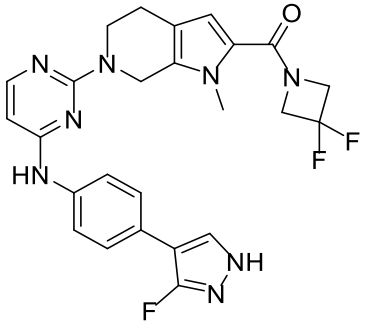
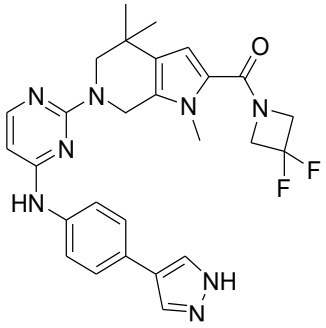
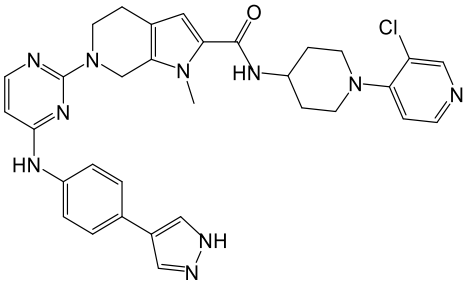
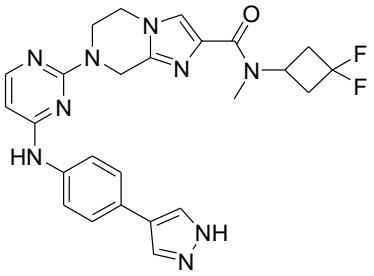
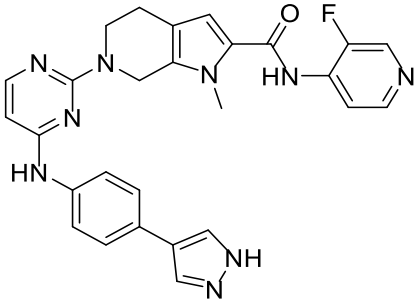
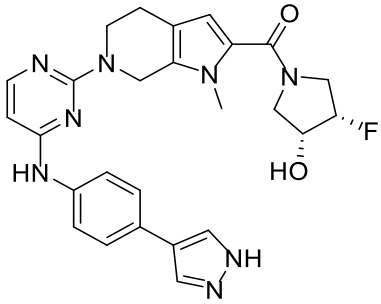
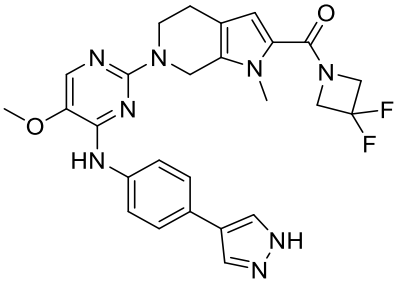
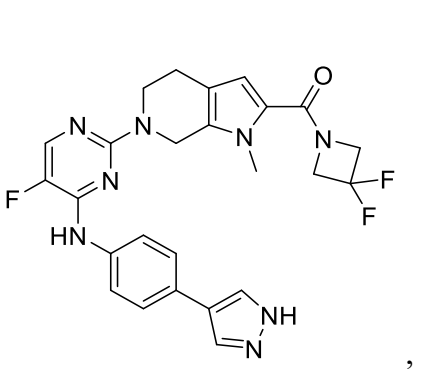
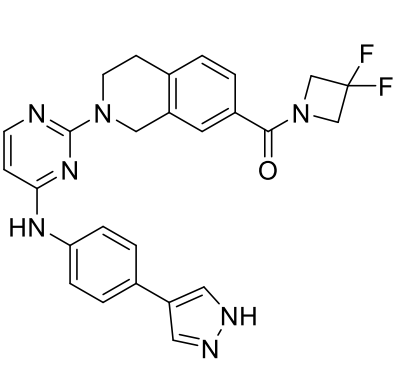
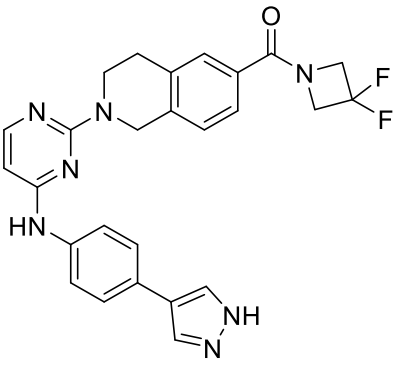
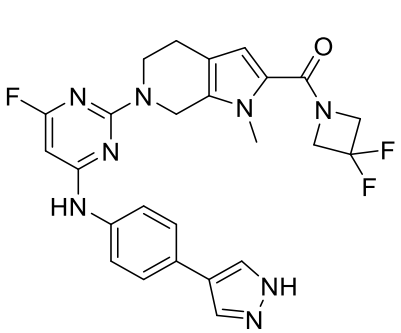
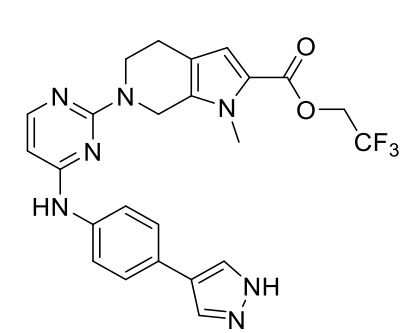
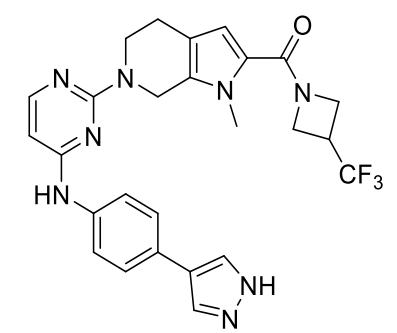
n is 0, 1 or 2;

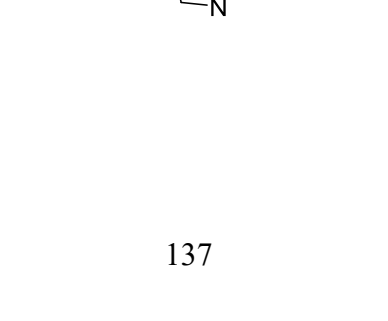
p is 0, 1 or 2;

q', when present, is each independently 0, 1 or 2.

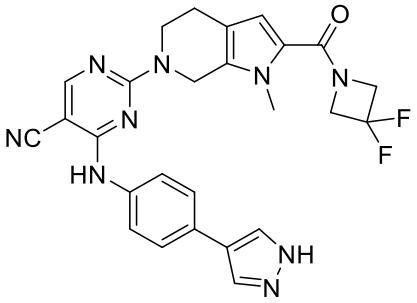
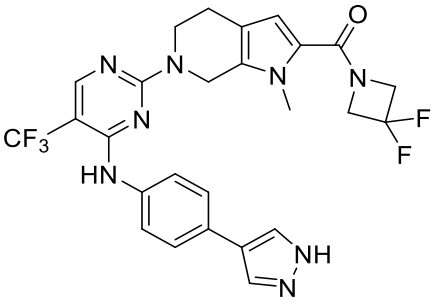
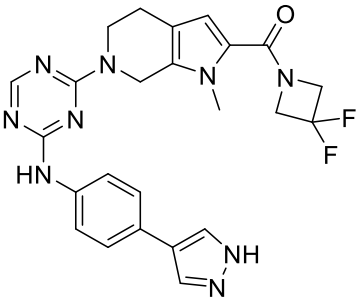
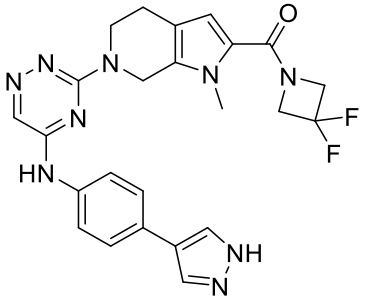
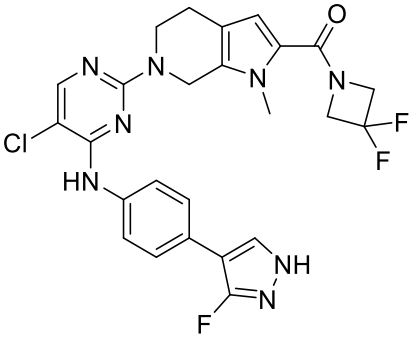
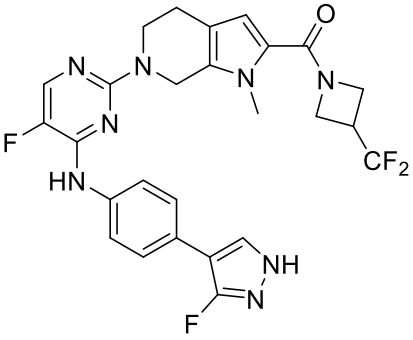
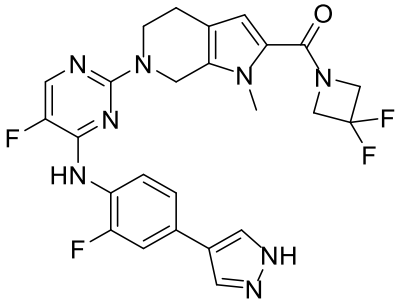
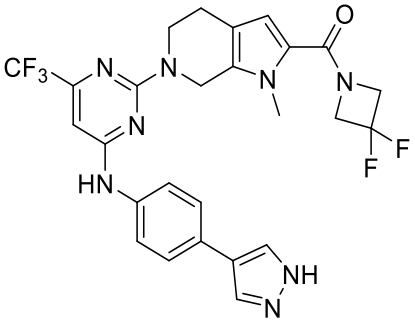
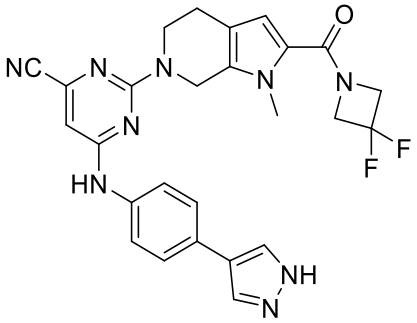
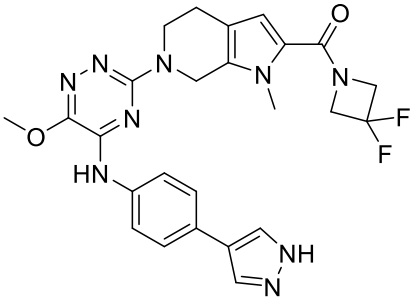
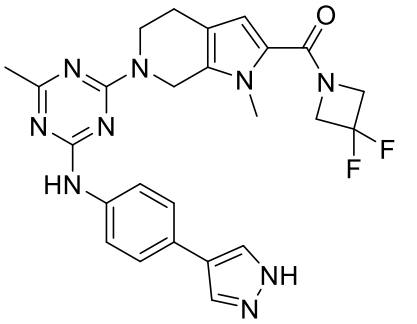
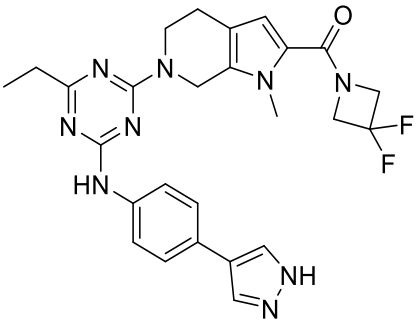
12. The compound represented by formula (I) or the racemate, the stereoisomer, the tautomer, the isotopically labeled compound, the nitrogen oxide, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to claim 1, wherein the compound is selected from the following structures:


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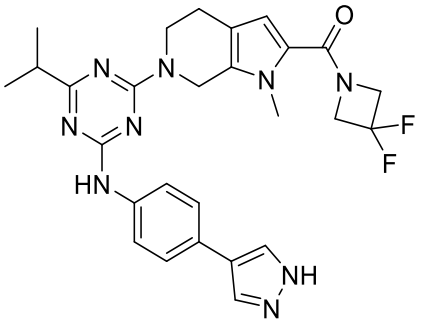
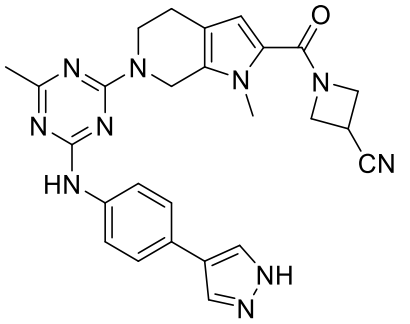
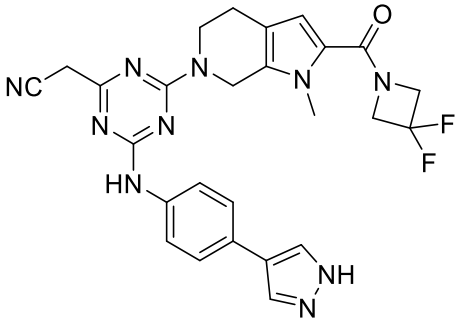
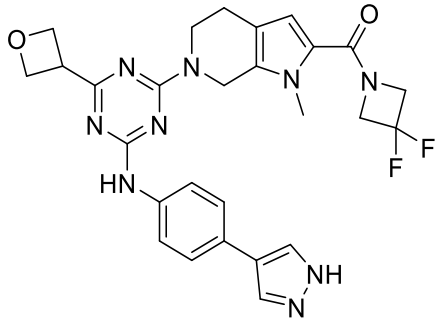
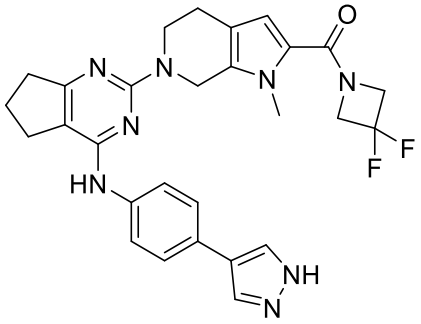
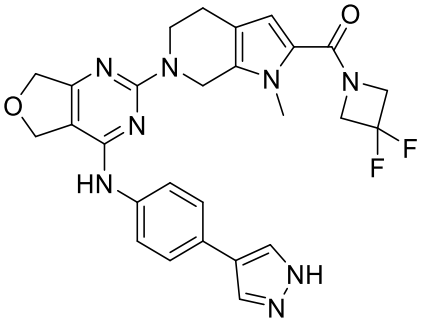
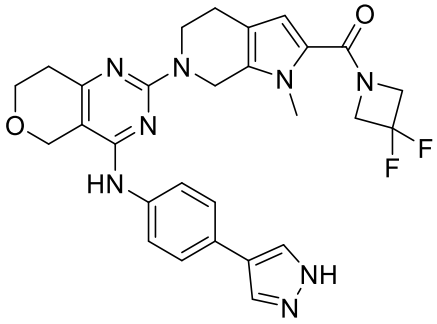
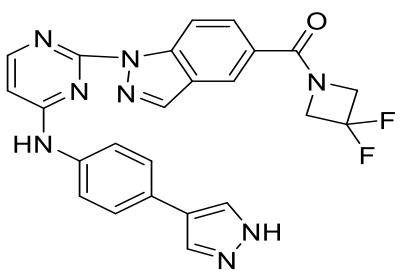
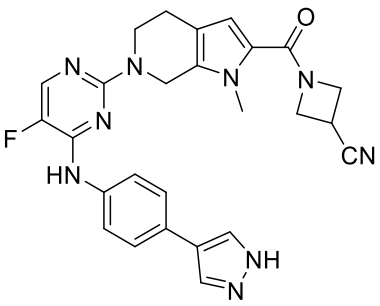
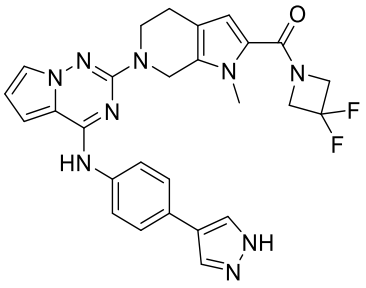
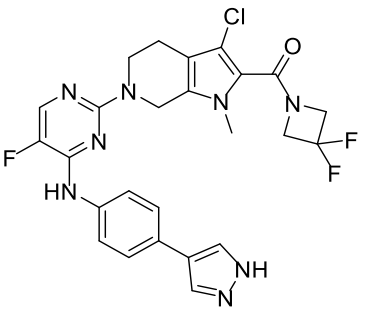
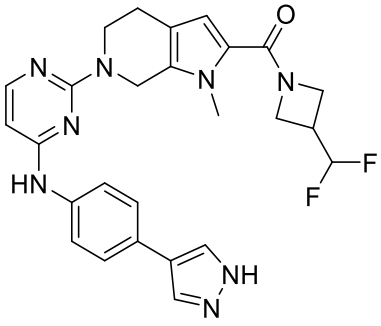
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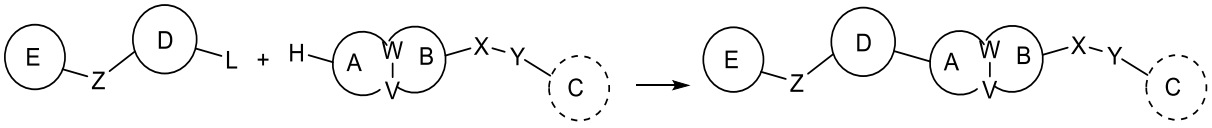
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and

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13. A method for preparing the compound represented by formula (I) according to any one of claims

1-12, comprising:



(I-1) (I-2) I

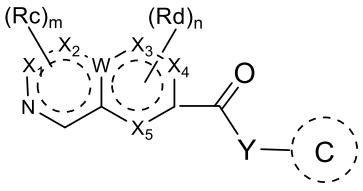
reacting a compound represented by formula (I-1) with a compound represented by formula (I-2) to give the compound represented by formula (I);

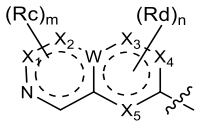
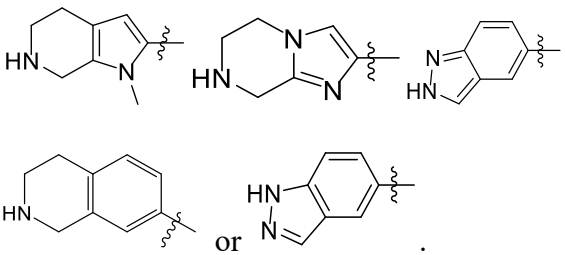
wherein, ring A, ring B, ring D, , ring E, W, V, X, Y and Z are as defined in any one of claims 1-12;

L is selected from leaving groups.

14. The method according to claim 13, wherein, L is halogen.

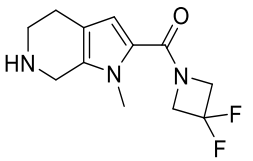
15. An intermediate for preparing the compound represented by formula (I) according to any one of claims 1-7, selected from the following structures:



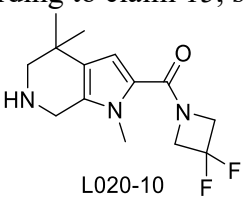
wherein  is 

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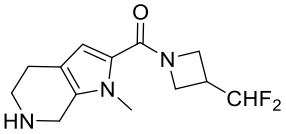
16. The intermediate according to claim 15, selected from the following structures:



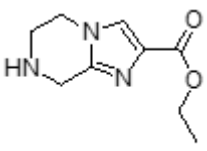
L006-4 ,



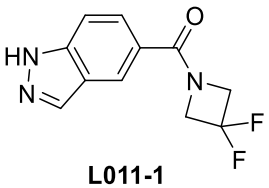
L020-10 ,

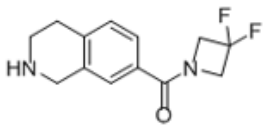


L039-2 ,



L002-2 ,



L011-1 and 

L028-2 .

17. A pharmaceutical composition, comprising a therapeutically effective amount of at least one of the compounds represented by formula (I) and the racemate, the stereoisomer, the tautomer, the nitrogen oxide, the isotopically labeled compound, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-12.

18. The pharmaceutical composition according to claim 17, wherein the pharmaceutical composition comprises a pharmaceutically acceptable carrier or excipient.

19. The pharmaceutical composition according to claim 18, wherein, the pharmaceutically acceptable carrier or excipient is selected from at least one of the following: a disintegrant, a glidant, a lubricant, a diluent, a filler, an adhesive and a colorant.

20. Use of at least one of the compounds represented by formula (I), or the racemate, the stereoisomer, the tautomer, the nitrogen oxide, the isotopically labeled compound, the solvate, the polymorph, or the pharmaceutically acceptable salt thereof according to any one of claims 1-12 or the pharmaceutical composition according to any one of claims 17-19 for manufacturing a medicament for preventing or treating one or more diseases caused by high expression of a Rho-associated protein kinase (ROCK) or excessive activation of ROCK, wherein the disease is: cardiovascular and cerebrovascular diseases, neurological diseases, fibrosis diseases, ocular diseases, tumors, arterial thrombotic disorders, radiation damage, respiratory diseases, or autoimmune diseases.

21. The use according to claim 20, wherein the disease is atherosclerosis, acute coronary syndrome, hypertension, cerebral vasospasm, cerebral ischemia, ischemic stroke, restenosis, heart disease, heart failure, cardiac hypertrophy, myocardial ischemia-reperfusion injury, diabetes, diabetic nephropathy, cancer, neuronal degeneration, nerve injury diseases, spinal cord injury, erectile dysfunction, platelet aggregation, leukocyte aggregation, glaucoma, ocular hypertension, asthma, osteoporosis, pulmonary fibrosis, hepatic fibrosis, renal fibrosis, COPD, kidney dialysis glomerulosclerosis, or neuronal degeneration inflammation.

22. The use according to claim 20, wherein the disease is idiopathic pulmonary fibrosis.