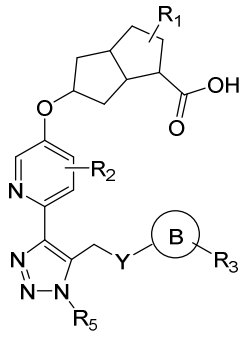
CLAIMS:

1. A compound represented by formula I-a or a pharmaceutically acceptable salt thereof,



I-a

wherein:

R_1 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, halogen, cyano, nitro and hydroxy, wherein the C_{1-6} alkyl and C_{1-6} alkoxy is optionally substituted with one or more R_{4a};

R_2 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, hydroxy, halogen, nitro, cyano, amino and carboxyl; the C_{1-6} alkyl or C_{1-6} alkoxy, is optionally substituted with one or more R_{4b};

R_5 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, methylenecyclopropyl, halogen, nitro and cyano, wherein the C_{1-6} alkyl, C_{1-6} alkoxy or methylenecyclopropyl is optionally substituted with one or more substituents selected from the group consisting of halogen, hydroxy, cyano and nitro;

Y is selected from the group consisting of an oxygen atom and a nitrogen atom;

ring B is selected from the group consisting of 5-6 membered heteroaryl; the 5-6 membered heteroaryl is optionally substituted with 1-3 substituents selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, methylenecyclopropyl, halogen, nitro and cyano, wherein the C_{1-6} alkyl, C_{1-6} alkoxy or methylenecyclopropyl is optionally substituted with one or more substituents selected from the group consisting of halogen, hydroxy, cyano and nitro;

R_3 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl, 5-6 membered heteroaryl, -O-3-6 membered heterocyclyl, -O-5-6 membered heteroaryl, hydroxy, halogen, nitro, cyano, amino and carboxyl; the C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl, 5-6 membered heteroaryl, -O-3-6 membered heterocyclyl or -O-5-6 membered heteroaryl is optionally substituted with one or more R_{4c};

each R_{4a} is independently selected from the group consisting of halogen, methyl, ethyl, methoxy, ethoxy, cyclopropoxy and cyclobutoxy;

each R_{4b} is independently selected from the group consisting of halogen, hydroxy, oxo, nitro, cyano and amino;

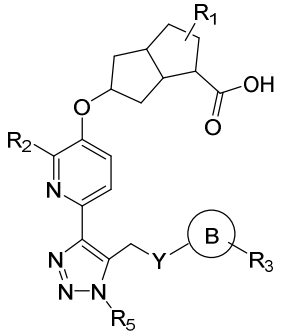
each R_{4c} is independently selected from the group consisting of halogen, hydroxy, oxo,

nitro, cyano, amino, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{2-6} alkenyloxy, C_{2-6} alkynyloxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl, 3-6 membered heterocycloalkoxy, C_{3-8} cycloalkenyloxy, 5-6 membered aryl and 3-6 membered heteroaryl.

2. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein
R_1 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, halogen, cyano, nitro and hydroxy, wherein the C_{1-6} alkyl or C_{1-6} alkoxy is optionally substituted with one or more R_{4a};
preferably, R_1 is selected from the group consisting of hydrogen, methyl, trifluoromethyl and halogen;
R_{4a} is as defined in claim 1.

3. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein
R_2 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} alkoxy, hydroxy, halogen, nitro, cyano, amino and carboxyl; the C_{1-6} alkyl and C_{1-6} alkoxy is optionally substituted with one or more R_{4b};
preferably, R_2 is selected from the group consisting of hydrogen, C_{1-6} alkyl and halogen; the C_{1-6} alkyl is optionally substituted with one or more R_{4b};
more preferably, R_2 is selected from C_{1-6} alkyl; the C_{1-6} alkyl is optionally substituted with one or more R_{4b};
R_{4b} is as defined in claim 1.

4. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, being a compound represented by formula I'-a or a pharmaceutically acceptable salt thereof,

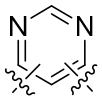
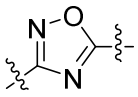


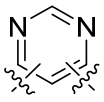
I'-a

wherein R_1, R_2, R_5, Y, ring B and R_3 are as defined in claim 1.

5. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-4, wherein Y is an oxygen atom.

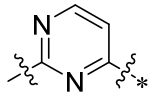
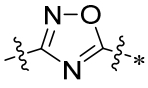
6. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-5, wherein:

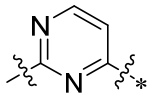
ring B is selected from the group consisting of  and ;

the  is optionally substituted with 1-3 substituents selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, methylenecyclopropyl, halogen, nitro and cyano, wherein the C_{1-6} alkyl, C_{1-6} alkoxy or methylenecyclopropyl is optionally substituted with one or more substituents selected from the group consisting of halogen, hydroxy, cyano and nitro.

7. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-6, wherein:

ring B is selected from the group consisting of:

 and , and R_3 is attached to the * end;

preferably, ring B is selected from , and R_3 is attached to the * end.

8. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-7, wherein:

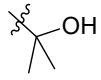
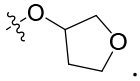
R_3 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl, 5-6 membered heteroaryl, -O-3-6 membered heterocyclyl and -O-5-6 membered heteroaryl; the C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl, 5-6 membered heteroaryl, -O-3-6 membered heterocyclyl or -O-5-6 membered heteroaryl is optionally substituted with one or more R_{4c};

preferably, R_3 is selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy and 3-6 membered cycloalkyl; the C_{1-6} alkyl, C_{1-6} alkoxy or 3-6 membered cycloalkyl is optionally substituted with one or more R_{4c};

R_{4c} is as defined in claim 1.

9. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-8, wherein R_3 is selected from C_{1-6} alkyl; the C_{1-6} alkyl is substituted with one or more R_{4c}; preferably, R_3 is selected from methyl; the methyl is substituted with one or more R_{4c};

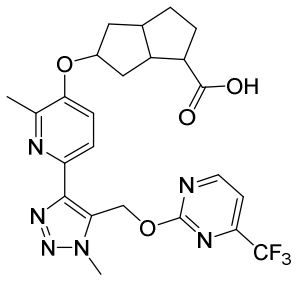
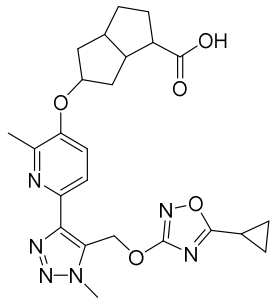
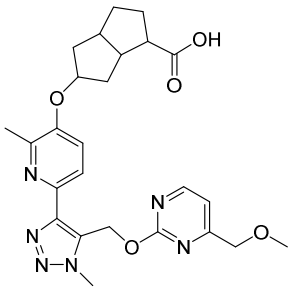
R_{4c} is as defined in claim 1.

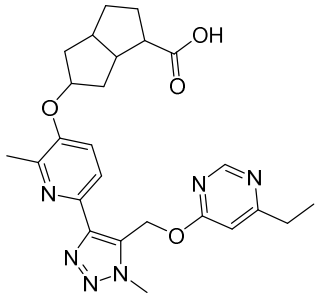
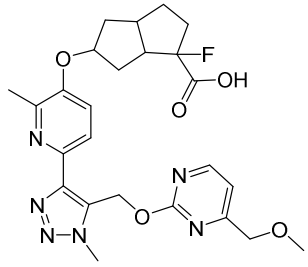
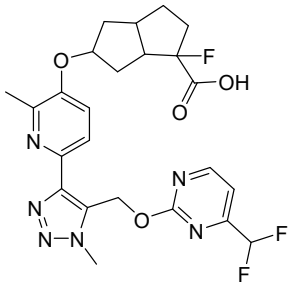
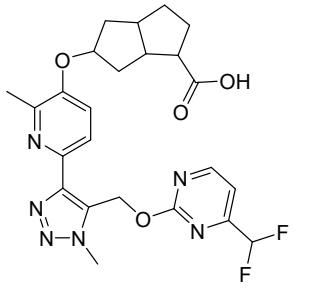
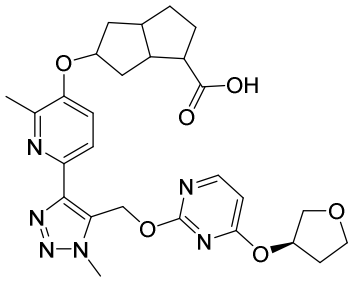
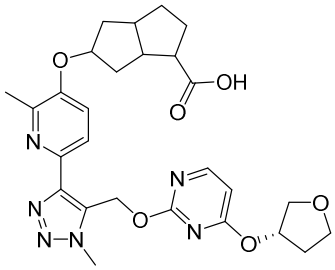
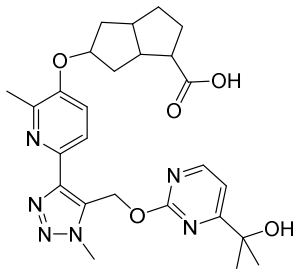
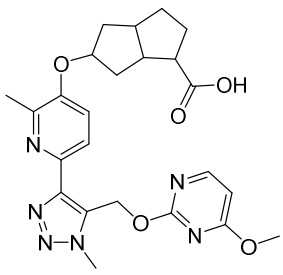
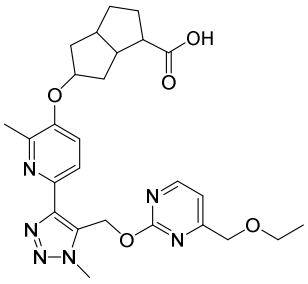
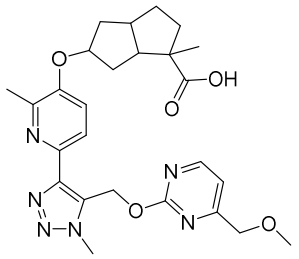
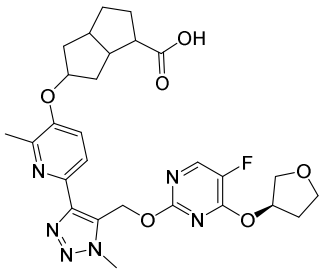
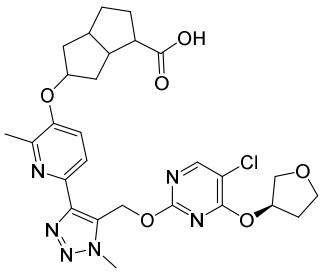
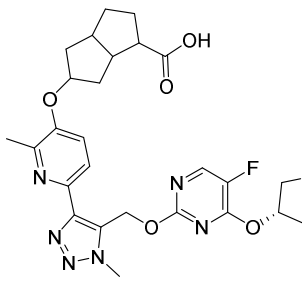
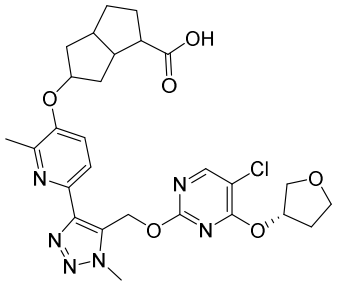
10. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein R_3 is selected from the group consisting of trifluoromethyl, difluoromethyl, ethyl, cyclopropyl, $-CH_2OCH_3$, $-CH_2OCHF_2$, $-CH_2OCH_2CH_3$,  and .

11. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein:
R_5 is selected from C_{1-6} alkyl, wherein the C_{1-6} alkyl is optionally substituted with one or more halogens;
preferably, R_5 is selected from methyl, wherein the methyl is optionally substituted with 1-3 halogens.

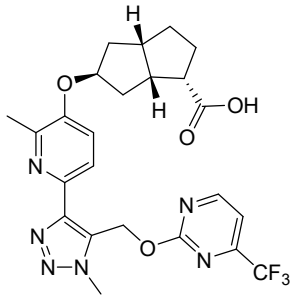
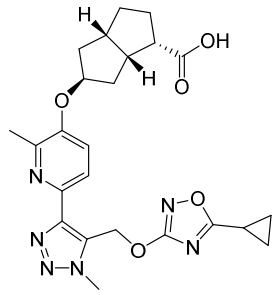
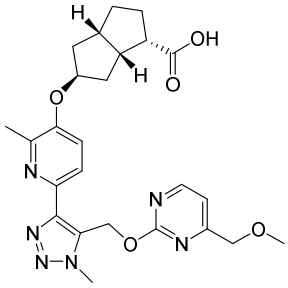
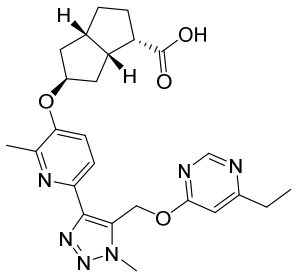
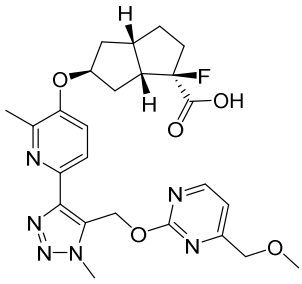
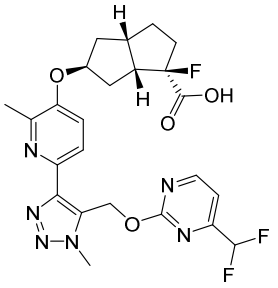
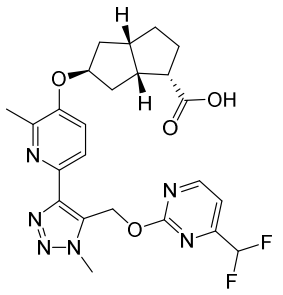
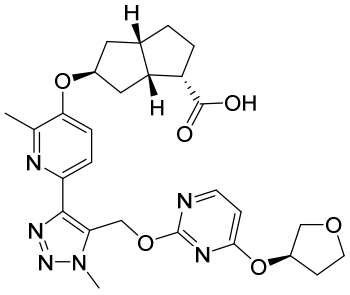
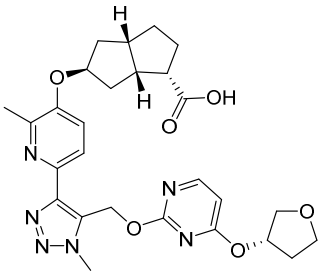
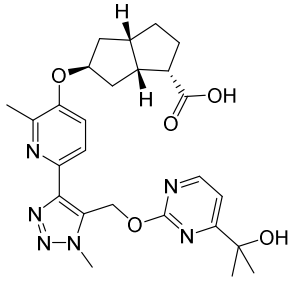
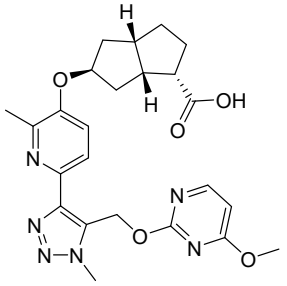
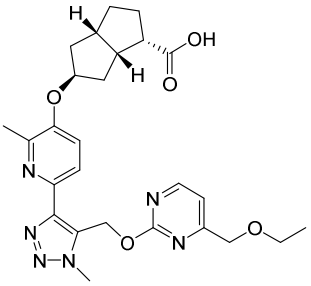
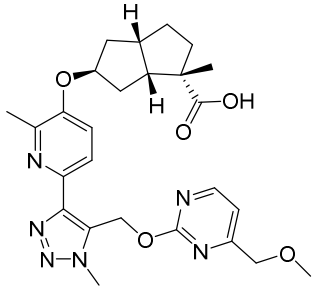
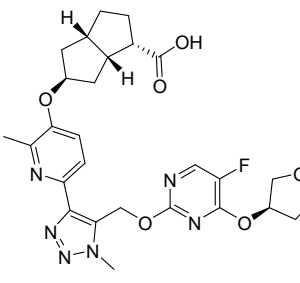
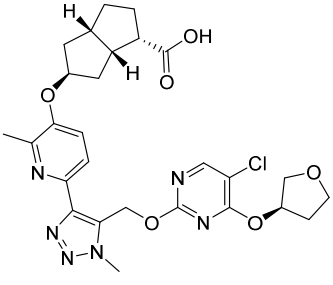
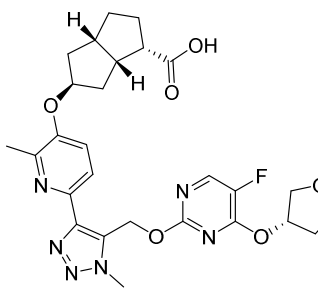
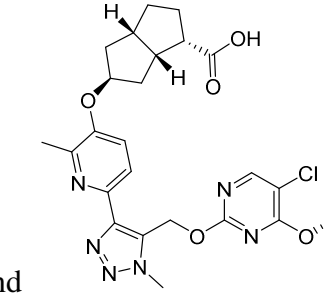
12. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein
each R_{4c} is independently selected from the group consisting of halogen, hydroxy, oxo, nitro, cyano and amino;
or each R_{4c} is independently selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkoxy, 3-6 membered cycloalkyl, 3-6 membered heterocyclyl and 3-6 membered heterocycloalkoxy;
or each R_{4c} is independently selected from the group consisting of halogen, methyl, ethyl, methoxy, ethoxy, cyclopropoxy and cyclobutoxy;
or R_{4c} is C_{1-6} haloalkoxy or C_{1-6} haloalkyl.

13. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein the compound represented by formula I-a is selected from the group consisting of

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and

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14. The compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to claim 1, wherein the compound represented by formula I-a is selected from the group consisting of:

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 and .

15. An isotopically substituted form of the compound represented by formula I-a according to any of claims 1-14, wherein preferably, the isotopic substitution is a substitution with a deuterium atom.

16. A pharmaceutical composition comprising a therapeutically effective amount of at least one of the compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-14 or the isotopically substituted form according to claim 15, and a pharmaceutically acceptable excipient.

17. Use of the compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-14 or the isotopically substituted form according to claim 15 or the pharmaceutical composition according to claim 16 in the preparation of a medicament for preventing and/or treating organ fibrotic diseases, respiratory diseases, renal diseases, hepatic diseases, inflammatory diseases, neurological diseases, cardiovascular and cerebrovascular diseases, gastrointestinal diseases, pain, urological diseases, ophthalmic diseases, metabolic diseases, cancer or transplant rejection.

18. Use of the compound represented by formula I-a or the pharmaceutically acceptable salt thereof according to any of claims 1-14 or the isotopically substituted form according to claim 15 or the pharmaceutical composition according to claim 16 in the preparation of a medicament for preventing and/or treating pulmonary fibrosis.