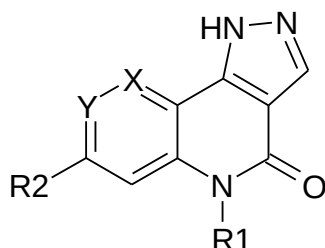


CLAIMS

1. Compound of the Formula (I)

5



in which:

X represents CH or a nitrogen atom,

10 Y represents CH or a nitrogen atom, where X or Y is a nitrogen atom,

R₁ represents a (C₁-C₄)alkyl non substituted or substituted with one or more halogen atoms,R₂ represents an aryl or a heteroaryl group, non substituted or substituted with one or more substituents independently selected from:

15

- a halogen atom
- a (C₁-C₄)alkyl group, where the alkyl group is non-substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
- O-R₄
- 20 - (CO)NR₅R_{5'}
- a heterocyclyl group, non substituted or substituted with one or more (C₁-C₄)alkyl group
- a cycloalkyl group
- a cyano group
- 25 - NR₆R_{6'}
- SO₂NR₆R_{6'}
- NHSO₂R₇
- NH(CO)R₇
- (CO)R₈ and

- a heteroaryl group

R₃ represents a (C1-C4)alkyl or a cycloalkyl group,

R₄ represents a hydrogen atom or a (C1-C4)alkyl group, where the alkyl group is non substituted or substituted with one or more halogen atom or heterocyclyl group,

5 R₅ and R₅ represent independently a hydrogen atom, a (C1-C4)alkyl or aryl group,

R₆ and R₆ represent independently a hydrogen atom or a (C1-C4)alkyl group,

R₇ represents a (C1-C4)alkyl group, and

R₈ represents a (C1-C4)alkyl, (C1-C4)alkoxy, cycloalkyl or hydroxy group,

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic

10 mixture, and addition salt with an acid.

2. Compound of formula (I) according to claim 1, characterized in that X represents a nitrogen atom and Y represents CH, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

15

3. Compound of formula (I) according to claim 1, characterized in that X represents CH and Y represents a nitrogen atom, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid

20

4. Compound of formula (I) according to any one of claims 1 to 3, characterized in that R₁ represents a (C₁-C₄)alkyl group non substituted or substituted with one or more fluorine atoms, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

25

5. Compound of formula (I) according to claim 4 characterized in that R₁ represents a trifluoroethyl group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

30

6. Compound of formula (I) according to any one of claims 1 to 5, characterized in that R₂ represents an aryl group non substituted or substituted with one or more substituents independently selected from:

- a halogen atom

- 5
- a (C₁-C₄)alkyl group, where the alkyl group is non substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
 - a hydroxy group
 - O-R₄
 - (CO)NHR₅
 - a heterocyclyl group, non substituted or substituted with a (C₁-C₄)alkyl group
 - NR₆R_{6'}
 - SO₂NR₆R_{6'}
 - 10 - NHSO₂R₇
 - NH(CO)R₇
 - (CO)R₈ and
 - a heteroaryl group,

15 in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

20 7. Compound of formula (I) according to claim 6, characterized in that R₂ represents a phenyl group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

25 8. Compound of formula (I) according to any one of claims 1 to 5, characterized in that R₂ represents a heteroaryl group non substituted or substituted with one or more substituents independently selected from:

- a halogen atom
- 25 - a (C₁-C₄)alkyl group, where the alkyl group is non substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
- O-R₄
- a heterocyclyl group, non substituted or substituted with a (C₁-C₄)alkyl group
- 30 - a cycloalkyl group
- a cyano group

- $\text{NR}_6\text{R}_6'$ and
- $(\text{CO})\text{R}_8$,

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

5

9. Compound of formula (I) according to claim 8, characterized in that R2 represents an heteroaryl group comprising 1 or 2 nitrogen atoms, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

10

10. Compound of formula (I) according to claim 8 or 9, characterized in that R2 represents a pyridine, a pyrimidine or a quinoline group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

15

11. Compounds of formula (I) according to claim 1, which are selected from the following list :

7-(2-Chloro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

20

7-Pyridin-2-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-[2-(4-Methyl-piperazin-1-yl)-pyridin-4-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-(4-Fluoro-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

25

7-o-Tolyl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

5-(2,2,2-Trifluoro-ethyl)-7-(2-trifluoromethyl-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

30

7-(2-Fluoro-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-Pyridin-4-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-Quinolin-8-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

- 5-(2,2,2-Trifluoro-ethyl)-7-(2-trifluoromethoxy-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzamide
- 5 7-(4-Morpholin-4-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(6-Amino-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Fluoro-4-methoxy-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 10 4-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-*N*-phenyl-benzamide
- 2-Fluoro-*N*-methyl-5-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzamide
- 15 7-(2-Morpholin-4-ylmethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Ethoxymethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- N*-Methyl-2-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 20 7-(3-Chloro-2-hydroxy-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-[2-(2-Pyrrolidin-1-yl-ethoxy)-phenyl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 25 *N*-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-phenyl}-methanesulfonamide
- 7-(3-Pyrazol-1-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(6-Chloro-2-methyl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 30 *N*-Isopropyl-4-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 7-(2-Isopropoxy-pyridin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

- 7-(5-Methoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Ethoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 5 *N,N*-Dimethyl-2-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- N*-Ethyl-4-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 10 7-[6-(4-Methyl-piperazin-1-yl)-pyridin-3-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Morpholin-4-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Pyrrolidin-1-yl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 15 7-(2-[1,4]Diazepan-1-yl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-[2-(Ethyl-methyl-amino)-pyridin-3-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Fluoro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 20 7-(2-Chloro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-Pyridin-2-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 25 7-Pyridin-4-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-[2-(4-Methyl-piperazin-1-yl)-pyridin-4-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carboxylic acid methyl ester
- 30 7-(6-Amino-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(2-Dimethylamino-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

- 5-(2,2,2-Trifluoro-ethyl)-7-(3-trifluoromethyl-pyridin-2-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5-(2,2,2-Trifluoro-ethyl)-7-(5-trifluoromethyl-pyridin-2-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carbonitrile
- 7-(2-Cyclopropylaminomethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 10 7-(4-Cyclopentyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(5-Chloro-2-methoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(3-Methylaminomethyl-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 15 7-(4-Isopropyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(5-Chloro-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(3-Chloro-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 20 7-(2-Amino-6-methyl-pyrimidin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(2-Amino-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 25 5-(2,2,2-Trifluoro-ethyl)-7-(4-trifluoromethyl-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-[2-(2-Hydroxy-ethyl)-phenyl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-nicotinonitrile
- 30 7-(6-Methyl-pyrimidin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5-(2,2,2-Trifluoro-ethyl)-7-(6-trifluoromethyl-pyridin-3-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

7-(3-Amino-pyridin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

N-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-phenyl}-butyramide

5 7-(4-Cyclohexyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

N-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-phenyl}-isobutyramide

10 7-(2-Acetyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

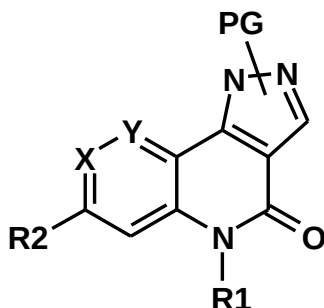
7-[4-(cyclopropyl-carbonyl)phenyl]-5-(2,2,2-trifluoroethyl)-1,5-dihydro-4H-pyrazolo[4,3-c][1,5]naphthyridin-4-one

7-Pyridin-3-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

15 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carboxylic acid

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

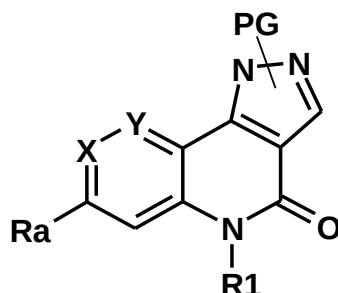
20 12. Process for preparing a compound of formula (I) according to any one of claims 1 to 11, characterized in that a compound of formula (VII)



wherein X, Y, R1 and R2 are as described in claim 1 and PG represents a protecting group,

25 is subjected to a deprotection reaction to obtain a compound of formula (I).

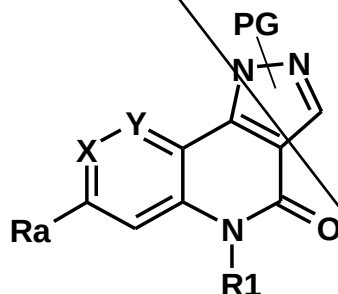
13. Process for preparing a compound of formula (I) according to claim 12, characterized in that a compound of formula (VI)



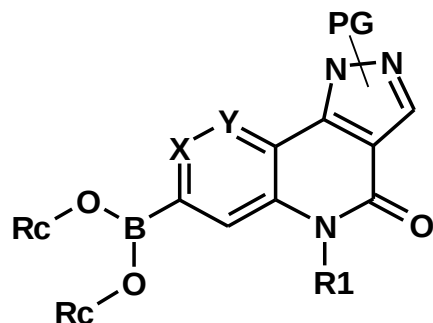
wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and
 5 and Ra represents a chlorine or bromine atom,
 and a compound R2-E, wherein R2 is as described in claim 1 and E represents a leaving
 group,
 are subjected to an organometallic coupling reaction catalyzed with a palladium catalyst,
 to give a compound of formula (VII).

10

14. Process for preparing a compound of formula (I) according to claim 12, characterized in that a compound of formula (VI)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and
 15 and Ra represents a chlorine or bromine atom,
 is subjected to a coupling reaction, catalyzed with a palladium catalyst, with a diborane
 derivative to give a boronic acid or ester of formula (VIII)



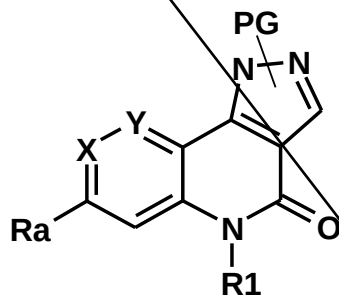
wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and Rc represents a hydrogen atom or the two groups Rc represent each a carbon atom and are bonded together, non substituted or substituted with one or more (C₁-C₄)alkyl group,

5

and the compound of formula (VIII) is subjected to a Suzuki coupling reaction catalyzed with a palladium catalyst with a compound R2-E, wherein R2 is as described in claim 1 and E represents a leaving group, to give a compound of formula (VII).

10

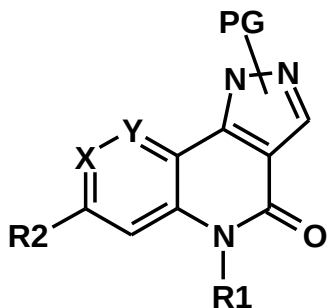
15. Compound of formula (VI)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and Ra represents a chlorine or bromine atom.

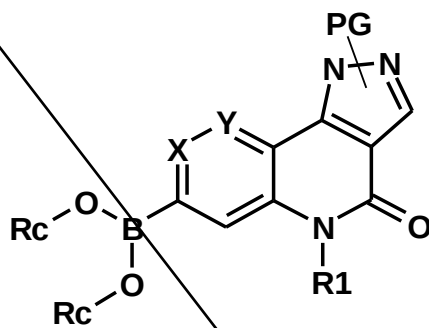
15

16. Compound of formula (VII)



wherein X, Y, R1 and R2 are as described in claim 1 and PG represents a protecting group.

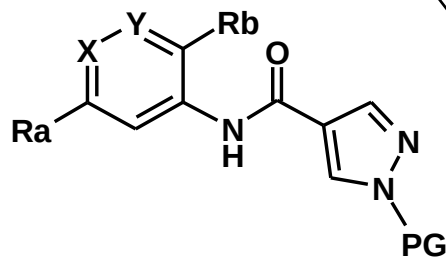
5 17. Compound of formula (VIII)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and each R_c represents a hydrogen atom or the two groups R_c represent each a carbon atom and are bonded together, non substituted or substituted with (C₁-C₄)alkyl.

10

18. Compound of formula (IV)

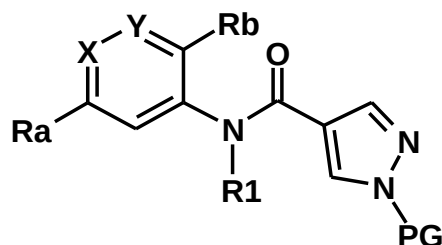


wherein X and Y are as described in claim 1, Ra represents a chlorine or a bromine atom, PG represents a protecting group and

15

- when X is a nitrogen atom, Rb represents an iodine atom and
- when X is CH, Rb represents a chlorine, bromine or iodine atom.

19. Compound of formula (V)



wherein X, Y and R1 are as described in claim 1, Ra represents a chlorine or a bromine atom, PG represents a protecting group, and

- 5 - when X is a nitrogen atom, Rb represents an iodine atom and
- when X is CH, Rb represents a chlorine, bromine or iodine atom.

20. Medicament, characterized in that it comprises a compound of formula (I) according to any one of claims 1 to 11, or an addition salt of this compound with a pharmaceutically acceptable acid of the compound of formula (I).

21. Pharmaceutical composition, characterized in that it comprises a compound of formula (I) according to any one of claims 1 to 11, or a pharmaceutically acceptable salt of this compound, and also at least one pharmaceutically acceptable excipient.

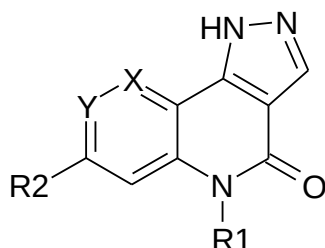
22. Compound of formula (I) according to any one of claims 1 to 11, for use as MetAP2 inhibitor.

23. Compound of formula (I) according to any one of claims 1 to 11 for use in the treatment or prevention of pulmonary and hepatic fibrosis, of pathologies involving a reactivation of angiogenesis such as diabetic retinopathy, age-related macular degeneration (ARMD) and psoriasis, of any carcinoma having a substantial degree of vascularization, such as lung, breast, prostate, oesophageal, pancreatic, liver, colon or kidney carcinomas or carcinomas that induce metastases, such as colon, breast, liver and stomach carcinomas, and melanomas, of solid tumours, such as pancreatic, breast, prostate, colon or kidney tumours, neuroblastomas and Kaposi's sarcoma, of hepatocarcinomas, cholangiocarcinoma and also malignant mesothelioma, pancreatic cancer, haemoangioma, endometriosis, arthritis and in particular rheumatoid arthritis, autoimmune diseases, obesity and microsporidiosis.

CLAIMS

1. Compound of the Formula (I)

5



in which:

X represents CH or a nitrogen atom,

10 Y represents CH or a nitrogen atom, where X or Y is a nitrogen atom,

R₁ represents a (C₁-C₄)alkyl non substituted or substituted with one or more halogen atoms,

R₂ represents an aryl or a heteroaryl group, non substituted or substituted with one or more substituents independently selected from:

- 15
- a halogen atom
 - a (C₁-C₄)alkyl group, where the alkyl group is non-substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
 - O-R₄
- 20
- (CO)NR₅R_{5'}
 - a heterocyclyl group, non substituted or substituted with one or more (C₁-C₄)alkyl group
 - a cycloalkyl group
 - a cyano group
- 25
- NR₆R_{6'}
 - SO₂NR₆R_{6'}
 - NHSO₂R₇
 - NH(CO)R₇
 - (CO)R₈ and

- a heteroaryl group

R₃ represents a (C1-C4)alkyl or a cycloalkyl group,

R₄ represents a hydrogen atom or a (C1-C4)alkyl group, where the alkyl group is non substituted or substituted with one or more halogen atom or heterocyclyl group,

5 R₅ and R_{5'} represent independently a hydrogen atom, a (C1-C4)alkyl or aryl group,

R₆ and R_{6'} represent independently a hydrogen atom or a (C1-C4)alkyl group,

R₇ represents a (C1-C4)alkyl group, and

R₈ represents a (C1-C4)alkyl, (C1-C4)alkoxy, cycloalkyl or hydroxy group,

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic

10 mixture, and addition salt with an acid.

2. Compound of formula (I) according to claim 1, characterized in that X represents a nitrogen atom and Y represents CH, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

15

3. Compound of formula (I) according to claim 1, characterized in that X represents CH and Y represents a nitrogen atom, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid

20 4. Compound of formula (I) according to any one of claims 1 to 3, characterized in that R₁ represents a (C₁-C₄)alkyl group non substituted or substituted with one or more fluorine atoms, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

25 5. Compound of formula (I) according to claim 4 characterized in that R₁ represents a trifluoroethyl group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

30 6. Compound of formula (I) according to any one of claims 1 to 5, characterized in that R₂ represents an aryl group non substituted or substituted with one or more substituents independently selected from:

- a halogen atom

- a (C₁-C₄)alkyl group, where the alkyl group is non substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
 - a hydroxy group
 - 5 - O-R₄
 - (CO)NHR₅
 - a heterocyclyl group, non substituted or substituted with a (C₁-C₄)alkyl group
 - NR₆R_{6'}
 - SO₂NR₆ R_{6'}
 - 10 - NHSO₂R₇
 - NH(CO)R₇
 - (CO)R₈ and
 - a heteroaryl group,
- in the form of a base, enantiomers, diastereoisomers, tautomers including racemic
- 15 mixture, and addition salt with an acid.

7. Compound of formula (I) according to claim 6, characterized in that R₂ represents a phenyl group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

20

8. Compound of formula (I) according to any one of claims 1 to 5, characterized in that R₂ represents a heteroaryl group non substituted or substituted with one or more substituents independently selected from:

- a halogen atom
- 25 - a (C₁-C₄)alkyl group, where the alkyl group is non substituted or substituted with one or more substituents independently selected from a halogen atom, a heterocyclyl, (C₁-C₄)alkoxy or hydroxy group or NHR₃
- O-R₄
- a heterocyclyl group, non substituted or substituted with a (C₁-C₄)alkyl group
- 30 - a cycloalkyl group
- a cyano group

- $\text{NR}_6\text{R}_6'$ and
- $(\text{CO})\text{R}_8$,

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

5

9. Compound of formula (I) according to claim 8, characterized in that R2 represents an heteroaryl group comprising 1 or 2 nitrogen atoms, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

10 10. Compound of formula (I) according to claim 8 or 9, characterized in that R2 represents a pyridine, a pyrimidine or a quinoline group, in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

15 11. Compounds of formula (I) according to claim 1, which are selected from the following list :

7-(2-Chloro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

20 7-Pyridin-2-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-[2-(4-Methyl-piperazin-1-yl)-pyridin-4-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-(4-Fluoro-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

25 7-o-Tolyl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

5-(2,2,2-Trifluoro-ethyl)-7-(2-trifluoromethyl-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

30 7-(2-Fluoro-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-Pyridin-4-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

7-Quinolin-8-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

- 5-(2,2,2-Trifluoro-ethyl)-7-(2-trifluoromethoxy-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzamide
- 5 7-(4-Morpholin-4-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(6-Amino-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Fluoro-4-methoxy-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 10 4-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-*N*-phenyl-benzamide
- 2-Fluoro-*N*-methyl-5-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzamide
- 15 7-(2-Morpholin-4-ylmethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Ethoxymethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- N*-Methyl-2-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 20 7-(3-Chloro-2-hydroxy-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-[2-(2-Pyrrolidin-1-yl-ethoxy)-phenyl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 25 *N*-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-phenyl}-methanesulfonamide
- 7-(3-Pyrazol-1-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(6-Chloro-2-methyl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 30 *N*-Isopropyl-4-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 7-(2-Isopropoxy-pyridin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one

- 7-(5-Methoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Ethoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 5 *N,N*-Dimethyl-2-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- N*-Ethyl-4-[4-oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,6]naphthyridin-7-yl]-benzenesulfonamide
- 10 7-[6-(4-Methyl-piperazin-1-yl)-pyridin-3-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Morpholin-4-yl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Pyrrolidin-1-yl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 15 7-(2-[1,4]Diazepan-1-yl-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-[2-(Ethyl-methyl-amino)-pyridin-3-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 7-(2-Fluoro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,6]naphthyridin-4-one
- 20 7-(2-Chloro-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-Pyridin-2-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 25 7-Pyridin-4-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-[2-(4-Methyl-piperazin-1-yl)-pyridin-4-yl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carboxylic acid methyl ester
- 30 7-(6-Amino-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(2-Dimethylamino-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

- 5-(2,2,2-Trifluoro-ethyl)-7-(3-trifluoromethyl-pyridin-2-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5-(2,2,2-Trifluoro-ethyl)-7-(5-trifluoromethyl-pyridin-2-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carbonitrile
- 7-(2-Cyclopropylaminomethyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(4-Cyclopentyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 10 7-(5-Chloro-2-methoxy-pyridin-3-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(3-Methylaminomethyl-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 15 7-(4-Isopropyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(5-Chloro-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(3-Chloro-pyridin-2-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 20 7-(2-Amino-6-methyl-pyrimidin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-(2-Amino-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 25 5-(2,2,2-Trifluoro-ethyl)-7-(4-trifluoromethyl-phenyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 7-[2-(2-Hydroxy-ethyl)-phenyl]-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-nicotinonitrile
- 30 7-(6-Methyl-pyrimidin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one
- 5-(2,2,2-Trifluoro-ethyl)-7-(6-trifluoromethyl-pyridin-3-yl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

7-(3-Amino-pyridin-4-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

N-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-phenyl}-butyramide

5 7-(4-Cyclohexyl-pyrimidin-5-yl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

N-{2-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-phenyl}-isobutyramide

10 7-(2-Acetyl-phenyl)-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

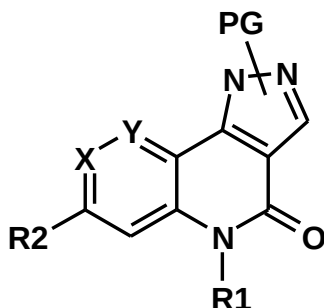
7-[4-(cyclopropylcarbonyl)phenyl]-5-(2,2,2-trifluoroethyl)-1,5-dihydro-4H-pyrazolo[4,3-c][1,5]naphthyridin-4-one

7-Pyridin-3-yl-5-(2,2,2-trifluoro-ethyl)-1,5-dihydro-pyrazolo[4,3-c][1,5]naphthyridin-4-one

15 3-[4-Oxo-5-(2,2,2-trifluoro-ethyl)-4,5-dihydro-1H-pyrazolo[4,3-c][1,5]naphthyridin-7-yl]-pyridine-2-carboxylic acid

in the form of a base, enantiomers, diastereoisomers, tautomers including racemic mixture, and addition salt with an acid.

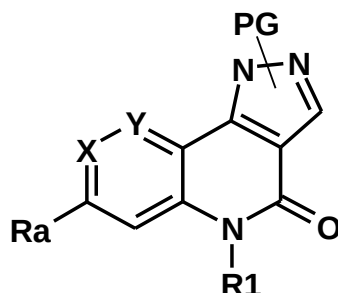
20 12. Process for preparing a compound of formula (I) according to any one of claims 1 to 11, characterized in that a compound of formula (VII)



wherein X, Y, R1 and R2 are as described in claim 1 and PG represents a protecting group,

25 is subjected to a deprotection reaction to obtain a compound of formula (I).

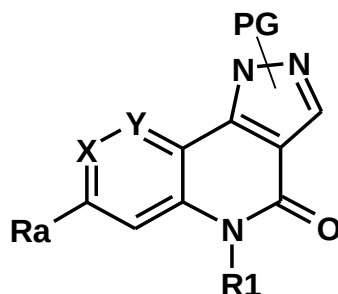
13. Process for preparing a compound of formula (I) according to claim 12, characterized in that a compound of formula (VI)



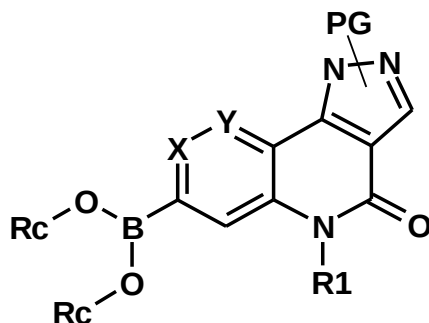
wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and
 5 and Ra represents a chlorine or bromine atom,
 and a compound R2-E, wherein R2 is as described in claim 1 and E represents a leaving
 group,
 are subjected to an organometallic coupling reaction catalyzed with a palladium catalyst,
 to give a compound of formula (VII).

10

14. Process for preparing a compound of formula (I) according to claim 12, characterized in that a compound of formula (VI)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and
 15 and Ra represents a chlorine or bromine atom,
 is subjected to a coupling reaction, catalyzed with a palladium catalyst, with a diborane
 derivative to give a boronic acid or ester of formula (VIII)



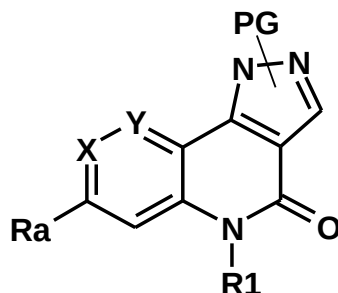
wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and Rc represents a hydrogen atom or the two groups Rc represent each a carbon atom and are bonded together, non substituted or substituted with one or more (C₁-C₄)alkyl group,

5

and the compound of formula (VIII) is subjected to a Suzuki coupling reaction catalyzed with a palladium catalyst with a compound R2-E, wherein R2 is as described in claim 1 and E represents a leaving group, to give a compound of formula (VII).

10

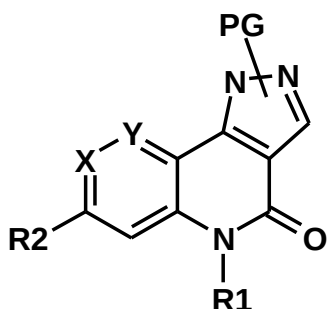
15. Compound of formula (VI)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and

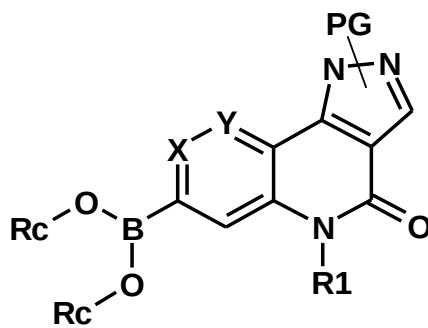
15 Ra represents a chlorine or bromine atom.

16. Compound of formula (VII)



wherein X, Y, R1 and R2 are as described in claim 1 and PG represents a protecting group.

- 5 17. Compound of formula (VIII)



wherein X, Y and R1 are as described in claim 1, PG represents a protecting group and each Rg represents a hydrogen atom or the two groups Rg represent each a carbon atom and are bonded together, non substituted or substituted with (C₁-C₄)alkyl.

10

18. Medicament, characterized in that it comprises a compound of formula (I) according to any one of claims 1 to 11, or an addition salt of this compound with a pharmaceutically acceptable acid of the compound of formula (I).

15

19. Pharmaceutical composition, characterized in that it comprises a compound of formula (I) according to any one of claims 1 to 11, or a pharmaceutically acceptable salt of this compound, and also at least one pharmaceutically acceptable excipient.

20

20. Compound of formula (I) according to any one of claims 1 to 11, for use as MetAP2 inhibitor.

21. Compound of formula (I) according to any one of claims 1 to 11 for use in the treatment or prevention of pulmonary and hepatic fibrosis, of pathologies involving a reactivation of angiogenesis such as diabetic retinopathy, age-related macular degeneration (ARMD) and psoriasis, of any carcinoma having a substantial degree of vascularization, such as lung, breast, prostate, oesophageal, pancreatic, liver, colon or kidney carcinomas or carcinomas that induce metastases, such as colon, breast, liver and stomach carcinomas, and melanomas, of solid tumours, such as pancreatic, breast, prostate, colon or kidney tumours, neuroblastomas and Kaposi's sarcoma, of hepatocarcinomas, cholangiocarcinoma and also malignant mesothelioma, pancreatic cancer, haemoangioma, endometriosis, arthritis and in particular rheumatoid arthritis, autoimmune diseases, obesity and microsporidiosis.

