

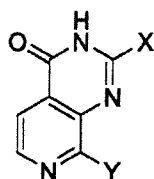
CLAIMS

【Claim 1】

A compound represented by following Formula 1, a stereoisomer thereof, or a pharmaceutically acceptable salt thereof:

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<Formula (I)>



wherein,

10 X is selected from the group consisting of hydrogen, tetrahydrofuranyl, benzofuranyl, dihydrobenzofuranyl, chromanyl, dihydroindenyl, tetrahydronaphthalenyl, -CH(R¹)NH-R² and CH(R¹)O-R², which benzofuran may optionally be substituted with one or more R³;

15 Y is hydrogen or -CH₂NH-A-Z-;

A is selected from the group consisting of a single bond, C₁₋₈ alkylene, C₂₋₈ alkenylene, C₂₋₈ alkynylene, C₃₋₁₀ cycloalkylene, heterocyclylene, -C(=O)- and -CH(R³)C(=O)-, which alkylene, alkenylene, alkynylene, cycloalkylene and
20 heterocyclylene may optionally be substituted with one or more R⁴;

Z is selected from the group consisting of hydrogen, -N(R⁴)(R⁵), C₁₋₈ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, heterocyclyl, aryl, arylalkyl and heteroaryl, which alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, aryl, arylalkyl and heteroaryl
25 may optionally be substituted with one or more R³;

R¹ is selected from the group consisting of hydrogen, amino, C₁₋₈ alkyl, C₁₋₈

alkoxy, C₁₋₈ alkoxyalkyl, C₁₋₄ aminoalkyl, C₁₋₄ fluoroalkyl, C₁₋₄ hydroxyalkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, arylalkyl, heterocyclyl and heteroarylalkyl, which heterocyclyl and heterocycloalkyl may optionally be substituted with one or more selected from the group consisting of halogen and C₁₋₈alkyl;

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R² is selected from the group consisting of aryl, arylalkyl and heteroaryl, which aryl, arylalkyl and heteroaryl may optionally be substituted with one or more selected from hydrogen, halogen, C₁₋₈ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, aryl, -CF₃, -CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₈ alkoxyC₁₋₈ alkyl, -C₁₋₈ alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₈ alkyl-R⁴, -NH-C(=O)R⁴ and -C₁₋₈alkyl-NR⁴R⁵;

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R³ is selected from the group consisting of hydrogen, C₁₋₈ alkyl, C₁₋₄ aminoalkyl, C₁₋₄ hydroxyalkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, arylalkyl, heteroarylalkyl, oxo, C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵) -O(R⁴), -S(R⁴), -SO₂(R⁴) and -N(R⁴)(R⁵); or, alternatively two vicinal substituents are forming aryl or heteroaryl ring, which is substituted with one or more R⁴.

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R⁴ or R⁵ is independently selected from the group consisting of hydrogen, C₁₋₆ alkyl, C₁₋₄ aminoalkyl, C₁₋₄ fluoroalkyl, C₁₋₄ hydroxyalkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₁₀ cycloalkyl, cycloalkylalkyl, heterocyclyl, heteroaryl, aryl, heterocyclylalkyl, heteroarylalkyl and arylalkyl, which alkyl, C₁₋₄ aminoalkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, heteroaryl, aryl, cycloalkylalkyl, heterocyclylalkyl, heteroarylalkyl and arylalkyl may optionally be substituted with one or more independently selected R¹; or, alternatively germinal R⁴ and R⁵ are forming N-containing heterocyclyl, which is substituted with one or more R¹, and

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wherein when Y is H, then X is -CH(R¹)O-R², R¹ is H, and

R² is selected from the group consisting of arylalkyl and heteroaryl, which arylalkyl and heteroaryl may optionally be substituted with one or more selected from hydrogen, halogen, C₁₋₈ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, aryl, -CF₃, -

30

CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -C₁₋₈ alkyl-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₈ alkoxyC₁₋₈ alkyl, -C₁₋₈ alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₈ alkyl-R⁴, -NH-C(=O)R⁴ and -C₁₋₈alkyl-NR⁴R⁵, or

R² is aryl which is substituted with one or more selected from C₁₋₈ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₁₀ cycloalkyl, aryl, -CF₃, -CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₈ alkoxyC₁₋₈ alkyl, -C₁₋₈ alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₈ alkyl-R⁴, -NH-C(=O)R⁴ and -C₁₋₈alkyl-NR⁴R⁵, wherein the substituted aryl may further optionally be substituted with halogen.

【Claim 2】

10 The compound of claim 1, the stereoisomer thereof, or the pharmaceutically acceptable salt thereof, wherein

X is selected from the group consisting of hydrogen, benzofuranyl, dihydrobenzofuranyl, chromanyl, dihydroindenyl, tetrahydronaphthalenyl, -CH(R¹)NH-R² and CH(R¹)O-R², which benzofuran may optionally be substituted with one or more R³;

A is selected from the group consisting of a single bond, C₁₋₈ alkylene, C₂₋₈ alkenylene, C₂₋₈ alkynylene, C₃₋₁₀ cycloalkylene, heterocyclylene, -C(=O)- and -CH(R³)C(=O)-, which alkylene, alkenylene, alkynylene, cycloalkylene and heterocyclylene may optionally be substituted with one or more R⁴;

Z is selected from the group consisting of hydrogen, -N(R⁴)(R⁵), C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, aryl, arylalkyl, phenyl, 4 to 10-membered heterocyclyl having 1 to 3 hetero atoms selected from the group consisting of N, O and S and 4 to 10-membered heteroaryl having 1 to 3 hetero atoms selected from the group consisting of N, O and S, which alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, heteroaryl, arylalkyl, and aryl may optionally be substituted independently with one or more R³;

30 R¹ is selected from the group consisting of hydrogen, amino, C₁₋₆ alkyl, C₁₋₆

alkoxy, C₁₋₆ alkoxyalkyl, C₁₋₃ aminoalkyl, C₁₋₃ fluoroalkyl, C₁₋₃ hydroxyalkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, benzyl, 4-10 membered heteroarylalkyl and 4-10 membered heterocyclyl having 1 to 3 hetero atoms selected from the group consisting of N, O and S, which heteroarylalkyl, and heterocyclyl may optionally be substituted with
5 one or more independently selected from the group consisting of halogen and C₁₋₆alkyl;

R² is selected from the group consisting of phenyl, benzyl and 4-10 membered heteroaryl having 1 to 3 hetero atoms selected from the group consisting of N, O or S, which phenyl, benzyl and heteroaryl may optionally be substituted with one or more
10 independently selected from hydrogen, halogen, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, -CF₃, -CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₆alkoxyC₁₋₆alkyl, -C₁₋₆alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₆alkyl-R⁴, -C₁₋₆alkyl-N(R⁴)(R⁵), -NH-C(=O)R⁴ and -C₁₋₆alkyl-NR⁴R⁵;

15 R³ is selected from the group consisting of hydrogen, C₁₋₆ alkyl, C₁₋₄ aminoalkyl, C₁₋₄ hydroxyalkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, arylalkyl, heteroarylalkyl, oxo, C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵) -O(R⁴), -S(R⁴), -SO₂(R⁴) and -N(R⁴)(R⁵); or, alternatively two vicinal substituents are forming phenyl or 4-10 membered heteroaryl ring, which is substituted with one or more R⁴;

20 R⁴ or R⁵ is independently selected from the group consisting of hydrogen, C₁₋₆ alkyl, C₁₋₄ aminoalkyl, C₁₋₄ fluoroalkyl, C₁₋₄ hydroxyalkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, C₃₋₈ cycloalkylC₁₋₄ alkyl, 4-10 membered heterocyclyl having 1 to 3 hetero atoms selected from the group consisting of N, O and S, aryl, 4-10 membered heterocyclyl C₁₋₄ alkyl having 1 to 3 hetero atoms selected from the group consisting of N, O and S, 4-10 membered heteroarylalkyl C₁₋₄ alkyl having 1 to 3 hetero atoms selected from the group consisting of N, O and S, and benzyl, and arylalkyl which alkyl, C₁₋₄ aminoalkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, heteroaryl, aryl, cycloalkylalkyl, heterocyclylalkyl, heteroarylalkyl and arylalkyl may optionally be
25 substituted with one or more independently selected R¹; or, alternatively germinal R⁴
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and R⁵ are forming 4-10 membered N-containing heterocyclyl, which is substituted with one or more R¹,

wherein when Y is H, then X is -CH(R¹)O-R², R¹ is H, and

R² is selected from the group consisting of benzyl and 4-10 membered heteroaryl
5 having 1 to 3 hetero atoms selected from the group consisting of N, O or S,, which benzyl and heteroaryl may optionally be substituted with one or more selected from hydrogen, halogen, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, -CF₃, -CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₆alkoxyC₁₋₆alkyl, -C₁₋₆alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₆alkyl-R⁴, -C₁₋₆alkyl-N(R⁴)(R⁵), -NH-C(=O)R⁴ and -C₁₋₆alkyl-NR⁴R⁵, or
10

R² is phenyl which is substituted with one or more selected from one or more selected from C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₈ cycloalkyl, -CF₃, -CN, -NO₂, -C(=O)-O(R⁴), -C(=O)-N(R⁴)(R⁵), -O(R⁴), -OCF₃, -S(R⁴), -SO₃, -SO₂(R⁴), -N(R⁴)(R⁵), C₁₋₆alkoxyC₁₋₆alkyl, -C₁₋₆alkyl-C(=O)R⁴, -C(=O)R⁴, -C₁₋₆alkyl-R⁴, -C₁₋₆alkyl-N(R⁴)(R⁵),
15 -NH-C(=O)R⁴ and -C₁₋₆alkyl-NR⁴R⁵, wherein the substituted phenyl may further optionally be substituted with halogen.

【Claim 3】

The compound of claim 1, the stereoisomer thereof, or the pharmaceutically acceptable salt thereof, wherein

20 X is hydrogen, tetrahydrofuranyl, benzofuranyl, dihydrobenzofuranyl, chromanyl, dihydroindenyl, tetrahydronaphthalenyl, -CH(R¹)NH-R² or CH(R¹)O-R², which benzofuranyl may optionally be substituted with piperidinoethylaminocarbonyl or methoxycarbonyl;

25 A is a single bond, methylene, ethylene, propylene, butylene, -C(=O)- or -CH₂C(=O)-, which methylene, ethylene, propylene and butylene may be optionally substituted with CH₃;

Z is hydrogen, amino, benzyl, pyridine, cyclohexyl, diethylamino, azetidine,
30 pyrrolidine, furane, thiophene, oxazole, isoxazole, pyrazole, imidazole, piperidine,

piperazine, pyrimidine, pyrazine, morpholine, tetrahydrofuran, tetrahydropyran, dihydropyrrolopyridine, or piperidinylmethyl, which substituted with one or more independently selected from oxo, Cl, CH₃, ethyl, isopropyl, butyl, hydroxyethyl, methoxyethyl, cyclopropyl, benzyl, methylpiperidine, -C(=O)-N(CH₃)₂, diethylamino, 5 dimethylamino, methylamino, methylpyrrolidinylmethyl, piperidine, benzylpyrrolidine and pyrrolidinyltetrahydrofuran or dimethylaminoethyl;

R¹ is hydrogen or methyl;

10 R² is phenyl which may optionally be substituted with one or more independently selected from the group consisting of fluoro, chloro, cyano, nitro, methyl, ethyl, butyl, trifluoromethyl, methoxy, cyclopentyl, cyclohexyl, methoxyethyl, -C(=O)-CH₃, -(CH₂)₂-C(=O)-CH₃, -NH-C(=O)-CH₃, pyridine, phenoxy, benzoyl, phenyl, propoxypiperidinylmethyl, methoxycarbonyl, benzyl optionally substituted with methyl, 15 propoxypiperidinomethyl, aminomethyl optionally substituted with tetrahydropyranyl, benzyl, tetrahydropyranmethyl or morpholinoethyl, aminocarbonyl optionally substituted with piperidinoethyl, hydroxyethylpiperidinomethyl, methoxyethylpiperidinomethyl, methylpiperidinomethyl, benzylpiperidinomethyl, morpholinoethyl, benzyl, cyclohexylmethyl, pyridinomethyl, dimethylaminopropyl, 20 cyclopentyl, acetyl piperidinomethyl, piperidinomethyl, aminocyclohexyl, tetrahydropyranomethyl or piperidinoethyl, pyrrolidinocarbonyl, piperidinocarbonyl optionally substituted with benzyl or propoxy, piperazinocarbonyl, morpholinocarbonyl, morpholinoethylaminocarbonyl, phenoxy, benzyloxy optionally substituted with methoxy, benzoyl, or phenyl; piperidine optionally substituted with methyl or benzyl; 25 pyridine optionally substituted with fluoro, bromo or methyl; pyrazine optionally substituted with bromo; indene; or benzyl optionally substituted with chloro ;

wherein when Y is H, X is -CH(R¹)O-R², R¹ is H, and R² is phenyl which is substituted with one or more independently selected from the group consisting of cyano, nitro, methyl, ethyl, butyl, trifluoromethyl, methoxy, cyclopentyl, cyclohexyl, 30 methoxyethyl, -C(=O)-CH₃, -(CH₂)₂-C(=O)-CH₃, -NH-C(=O)-CH₃, pyridine, phenoxy,

benzoyl, phenyl, propoxypiperidinylmethyl, methoxycarbonyl, benzyl optionally substituted with methyl, propoxypiperidinomethyl, aminomethyl optionally substituted with tetrahydropyranyl, benzyl, tetrahydropyranmethyl or morpholinoethyl, aminocarbonyl optionally substituted with piperidinoethyl, 5 hydroxyethylpiperidinomethyl, methoxyethylpiperidinomethyl, methylpiperidinomethyl, benzylpiperidinomethyl, morpholinoethyl, benzyl, cyclohexylmethyl, pyridinomethyl, dimethylaminopropyl, cyclopentyl, acetylpyperidinomethyl, piperidinomethyl, aminocyclohexyl, tetrahydropyranomethyl or piperidinoethyl, pyrrolidinocarbonyl, piperidinocarbonyl optionally substituted with benzyl or propoxy, piperazinocarbonyl, 10 morpholinocarbonyl, morpholinoethylaminocarbonyl, phenoxy, benzyloxy optionally substituted with methoxy, benzoyl, or phenyl.

【Claim 4】

A pyridopyrimidinone compound, the stereoisomer thereof, or the pharmaceutically acceptable salt thereof, wherein it is selected from the group 15 consisting of the following compounds:

2-((p-tolyl)oxy)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-butylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-(tert-butyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-(sec-butyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-cyclopentylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-cyclohexylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-(2-methoxyethyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-acetylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-(3-oxobutyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
N-(4-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)phenyl)acetamide,
2-(((2,3-dihydro-1H-inden-5-yl)oxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-(((5,6,7,8-tetrahydronaphthalen-2-yl)oxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((4-(morpholine-4-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
2-((3-(piperidine-1-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-benzylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-(1-phenylethyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-(2-phenylpropan-2-yl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-phenoxyphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-(benzyloxy)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-(benzyloxy)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzoylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((1,1'-biphenyl)-3-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 4-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzonitrile,
 3-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzonitrile,
 2-((4-nitrophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-methoxyphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((pyridin-4-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((pyridin-3-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((6-fluoropyridin-3-yl)oxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((6-bromopyridin-3-yl)oxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((6-methylpyridin-3-yl)oxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3,4,5-trimethoxyphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 N-(2-morpholinoethyl)-3-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,
 2-((3-(((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-((benzylamino)methyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-((4-propoxypiperidin-1-yl)methyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-(((tetrahydro-2H-pyran-4-yl)amino)methyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-(((2-morpholinoethyl)amino)methyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-(2-(piperidin-

4-yl)ethyl)benzamide,

2-chloro-N-((1-(2-hydroxyethyl)piperidin-4-yl)methyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-chloro-N-((1-(2-methoxyethyl)piperidin-4-yl)methyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-chloro-N-((1-methylpiperidin-4-yl)methyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

N-((1-benzylpiperidin-4-yl)methyl)-2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-chloro-N-(2-morpholinoethyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

N-benzyl-2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-((3-(4-benzylpiperidine-1-carbonyl)-4-chlorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-chloro-3-(4-propoxypiperidine-1-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-chloro-N-(cyclohexylmethyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-(pyridin-4-ylmethyl)benzamide,

2-chloro-N-(3-(dimethylamino)propyl)-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-chloro-N-cyclopentyl-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,

2-((4-chloro-3-(pyrrolidine-1-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-chloro-3-(piperidine-1-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

N-((1-acetyl)piperidin-4-yl)methyl)-2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-

d]pyrimidin-2-yl)methoxy)benzamide,
 2-((4-chloro-3-(piperazine-1-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 N-(trans-1,4-aminocyclohexyl)-2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzamide,
 2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-(piperidin-4-ylmethyl)benzamide,
 2-((4-chloro-3-(morpholine-4-carbonyl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-((tetrahydro-2H-pyran-4-yl)methyl)benzamide,
 2-methyl-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-(2-(piperidin-4-yl)ethyl)benzamide,
 2-bromo-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)-N-(2-(piperidin-4-yl)ethyl)benzamide,
 methyl 2-chloro-5-((4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzoate,
 2-((2-(pyridin-4-yl)phenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)-N-(2-(piperidin-4-yl)ethyl)benzofuran-7-carboxamide,
 methyl 2-(4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)benzofuran-7-carboxylate,
 2-(((4-(sec-butyl)phenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((4-cyclohexylphenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((4-phenoxyphenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((4-(benzyloxy)phenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((4-((4-methoxybenzyl)oxy)phenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 one,
 2-(((3-(benzyloxy)phenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-([1,1'-biphenyl]-3-ylamino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((3,4-difluorophenyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-(((1-methylpiperidin-4-yl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((1-benzylpiperidin-4-yl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-((benzylamino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((2,6-dichloropyridin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-
 one,
 8-(((cyclohexylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((4-(diethylamino)butyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((5-(diethylamino)pentan-2-yl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((3-(2-oxopyrrolidin-1-yl)propyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((azetidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (S)-8-(((pyrrolidin-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-methylpyrrolidin-3-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-
 one,
 8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-(piperidin-4-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1'-methyl-[1,4'-bipiperidin]-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-
 4(3H)-one,
 (R)-8-(((piperidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (S)-8-(((piperidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-methylpiperidin-3-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-3-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-2-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1s,4s)-4-aminocyclohexyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((2-
 chlorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((3-
 chlorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((4-chlorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((4-bromophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((pyridin-3-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)-2-((pyridin-4-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((1-benzylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2-chloro-5-(trifluoromethyl)phenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2,3-dichlorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2,4-dichlorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2,5-dichlorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2-fluorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((2-bromophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((piperidin-4-ylmethyl)amino)methyl)-2-((o-tolyloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((piperidin-4-ylmethyl)amino)methyl)-2-((m-tolyloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((piperidin-4-ylmethyl)amino)methyl)-2-((p-tolyloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((2-chlorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(phenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((2,4-difluorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3,5-difluorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-chloro-3-fluorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-oxo-8-(((piperidin-4-ylmethyl)amino)methyl)-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzonitrile,

4-((4-oxo-8-(((piperidin-4-ylmethyl)amino)methyl)-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzonitrile,

2-((2-chloro-5-methylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((5-bromopyrazin-2-yl)oxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chlorophenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((piperidin-4-ylmethyl)amino)methyl)-2-((pyridin-2-yloxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-chloro-3-methylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-ethylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3,4-dimethylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-chloro-2-methylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 3-((4-oxo-8-(((piperidin-4-ylmethyl)amino)methyl)-3,4-dihydropyrido[3,4-d]pyrimidin-2-yl)methoxy)benzonitrile,
 2-(((2,3-dihydro-1H-inden-5-yl)oxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-cyclopentylphenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-(1-phenylethyl)phenoxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((1-ethylpyrrolidin-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((4-(pyrrolidin-1-yl)butyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((1-methylpyrrolidin-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (R)-2-((4-benzylphenoxy)methyl)-8-(((1-ethylpyrrolidin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (S)-2-((4-benzylphenoxy)methyl)-8-(((1-ethylpyrrolidin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 8-(((azetidin-3-ylmethyl)amino)methyl)-2-((4-benzylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (R)-2-((4-benzylphenoxy)methyl)-8-(((tetrahydrofuran-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((4-benzylphenoxy)methyl)-8-(((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (S)-2-((4-benzylphenoxy)methyl)-8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 (R)-2-((4-benzylphenoxy)methyl)-8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-benzylphenoxy)methyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-((4-benzylphenoxy)methyl)-8-(((piperidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-((4-benzylphenoxy)methyl)-8-(((piperidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((1r,4r)-4-aminocyclohexyl)amino)methyl)-2-((4-benzylphenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-benzylphenoxy)methyl)-8-(((pyridin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((4-benzylphenoxy)methyl)-8-(((2-morpholinoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-((3-chloro-4-fluorophenoxy)methyl)-8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-methylpyrrolidin-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((tetrahydro-2H-pyran-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((tetrahydro-2H-pyran-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((tetrahydrofuran-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-morpholinoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((3-(1H-imidazol-1-yl)propyl)amino)methyl)-2-((3-chloro-4-fluorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((5-methylpyrazin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((morpholin-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-isopropylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-cyclopentylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((pyridin-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((furan-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((pyridin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((pyridin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 5-((((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)methyl)-N,N-dimethylfuran-2-carboxamide,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(2-methyl-1H-imidazol-1-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(thiophen-2-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((3-methylisoxazol-5-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((4-methylmorpholin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((oxazol-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((pyrimidin-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,
 2-((3-chloro-4-fluorophenoxy)methyl)-8-(((thiophen-2-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-chloropyridin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(3,5-dimethyl-1H-pyrazol-1-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(6-methylpyridin-2-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((3-(5-oxo-5,7-dihydro-6H-pyrrolo[3,4-b]pyridin-6-yl)propyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(pyridin-2-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-((3-chloro-4-fluorophenoxy)methyl)-8-(((morpholin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-(2-hydroxyethyl)piperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((1-(2-methoxyethyl)piperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-((3-chloro-4-fluorophenoxy)methyl)-8-(((morpholin-2-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-cyclopentyl-8-(((piperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-cyclopentyl-8-(((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((piperidin-4-yl)methyl)amino)methyl)-2-(tetrahydrofuran-2-yl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((1-methylpiperidin-4-yl)methyl)amino)methyl)-2-(tetrahydrofuran-2-yl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((piperidin-4-yl)methyl)amino)methyl)-2-(tetrahydrofuran-3-yl)pyrido[3,4-d]pyrimidin-4(3H)-one,

8-(((1-methylpiperidin-4-yl)methyl)amino)methyl)-2-(tetrahydrofuran-3-yl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(2,3-dihydrobenzofuran-2-yl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(2,3-dihydrobenzofuran-2-yl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-(chroman-2-yl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(chroman-2-yl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-(2,3-dihydro-1H-inden-2-yl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-((benzyloxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((benzyloxy)methyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-((benzyloxy)methyl)-8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((benzyloxy)methyl)-8-(((1-methylpyrrolidin-3-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((3-chlorobenzyl)oxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((3-chlorobenzyl)oxy)methyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-(((3-chlorobenzyl)oxy)methyl)-8-(((pyrrolidin-3-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((2-chlorobenzyl)oxy)methyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((2-chlorobenzyl)oxy)methyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-(1-(4-benzylphenoxy)ethyl)-8-(((1-methylpiperidin-4-yl)methyl)amino)methylpyrido[3,4-d]pyrimidin-4(3H)-one,

2-(1-(4-benzylphenoxy)ethyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(1-(4-benzylphenoxy)ethyl)-8-((((S)-pyrrolidin-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(1-(4-benzylphenoxy)ethyl)-8-((((1-methylpyrrolidin-3-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(1-(4-benzylphenoxy)ethyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(1-(4-benzylphenoxy)ethyl)-8-((((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(1-(3-chloro-4-fluorophenoxy)ethyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(1-(3-chloro-4-fluorophenoxy)ethyl)-8-((((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-(1-(3-chloro-4-fluorophenoxy)ethyl)-8-(((piperidin-4-ylmethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-2-(1-(3-chloro-4-fluorophenoxy)ethyl)-8-((((1-methylpiperidin-4-yl)methyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-(2-(dimethylamino)ethyl)-N-ethylacetamide,

N-butyl-2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-ethylacetamide,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-oxo-2-(pyrrolidin-1-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-oxo-2-(piperidin-1-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-morpholino-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(4-methylpiperazin-1-yl)-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-((1-methylpyrrolidin-3-yl)methyl)acetamide,

(R)-8-(((2-(3-aminopyrrolidin-1-yl)-2-oxoethyl)amino)methyl)-2-((3-chloro-4-fluorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(S)-8-(((2-(3-aminopyrrolidin-1-yl)-2-oxoethyl)amino)methyl)-2-((3-chloro-4-fluorophenoxy)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-(piperidin-3-yl)acetamide,

(S)-2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-(piperidin-3-yl)acetamide,

N-(1-benzylpyrrolidin-3-yl)-2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)acetamide,

2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-(trans-5-(pyrrolidin-1-yl)tetrahydrofuran-2-yl)acetamide,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-oxo-2-(4-(pyrrolidin-1-yl)piperidin-1-yl)ethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(3-morpholinopyrrolidin-1-yl)-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(3-(diethylamino)pyrrolidin-1-yl)-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(3-(dimethylamino)pyrrolidin-1-yl)-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

2-((3-chloro-4-fluorophenoxy)methyl)-8-(((2-(3-(methylamino)pyrrolidin-1-yl)-2-oxoethyl)amino)methyl)pyrido[3,4-d]pyrimidin-4(3H)-one,

(R)-2-(((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)amino)-N-(pyrrolidin-3-yl)acetamide,

N-((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)-2-(piperidin-4-yl)acetamide, and

N-((2-((3-chloro-4-fluorophenoxy)methyl)-4-oxo-3,4-dihydropyrido[3,4-d]pyrimidin-8-yl)methyl)piperidine-3-carboxamide.

【Claim 5】

A pharmaceutical composition comprising the compound of any one of claims 1 to 4, the stereoisomer thereof, or the pharmaceutically acceptable salt thereof, as an effective ingredient.

5 **【Claim 6】**

The pharmaceutical composition of claim 5, wherein it is for treatment of a cancer or a disease related to KDM dysregulation.

【Claim 7】

10 The pharmaceutical composition of claim 6, wherein the cancer is selected from the group consisting of prostate cancer, lung cancer, breast cancer, gastric cancer, cervical cancer, melanoma, renal cell carcinoma and leukemia.