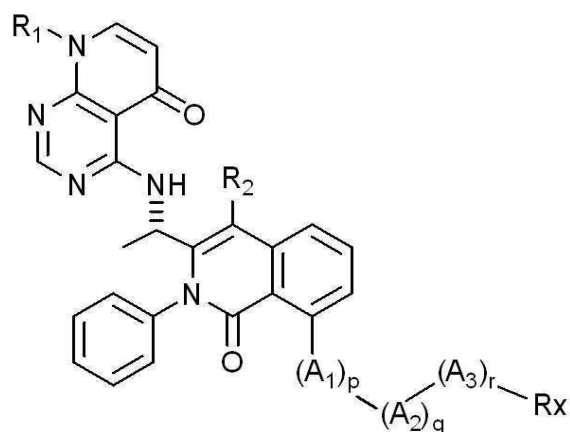


【CLAIMS】

【Claim 1】

A pyrido-pyrimidine derivative represented by following formula X, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof:

[Formula X]



in above formula X,

R₁ is a hydrogen atom or C₂₋₁₂ heteroaryl group, in which at least one or more hydrogen atoms of the C₂₋₁₂ heteroaryl group may be each independently substituted with a halogen atom or -O-Ra (in which Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group);

R₂ is a hydrogen atom, a halogen atom or C₃₋₁₀ cycloalkyl group;

Rx is R₃ or Rcy;

R₃ is a hydrogen atom, a halogen atom, -CN, OH, -O-Ra (in which Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group), -NH₂, -CF₃ or C₁₋₁₀ alkyl group;

heterocycloalkyl, C₂₋₁₀ heterocycloalkenyl,

R₄ is a halogen atom, -CN, -OH, -NH₂, -NO₂, -CF₃, -O-Ra, -N(Ra)(Rb), -S(=O)(=N-Ra)-Rb, -S(Ra)₃, -S-Ra, -S(=O)₂-Ra, -C(=O)-Ra, -C(=O)-N(Ra)(Rb), -C(=O)-O-Ra, -N(Ra)-C(=O)-Rb, -N(Ra)-C(=O)-O-Rb, -N(Ra)-S(=O)₂-Rb, C₁₋₁₀ alkyl group or -(A₄)_s-(A₅)_t-R₅, which are same as or different from each other if R₄ substituted for Cy is 2 or more, and Ra and Rb of R₄ are each independently H, NH₂, OH, -CF₃

or C₁₋₁₀ alkyl group;

in R₄, at least one or more hydrogen atoms of C₁₋₁₀ alkyl group may be substituted or unsubstituted with -OH, C₁₋₁₀ alkoxy, -CN, -CF₃ or -N(Ra)(Rb), in which Ra and Rb are each independently H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

A₁ and A₃ are each independently C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, in which at least one or more hydrogen atoms of A₁ and A₃ may be each independently substituted or unsubstituted with a halogen atom, -OH, -NO₂ or -CF₃;

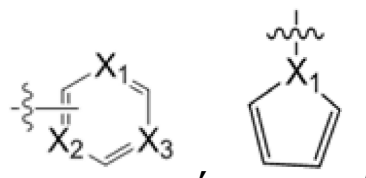
A₂ is -N(Ra)-, -N(Ra)-C(=O)-, -N(Ra)-C(=O)-O-, -C(=O)-N(Ra)-, -N(Ra)-S(=O)-, -N(Ra)-S(=O)₂-, -C(Ra)=N-, -S(=O)(=N-Ra)-, -C(=O)-, -C(=O)-O-, -O-, -S-, -S(=O)-, -S(=O)₂- or -B(Ra)-, in which Ra of A₂ is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

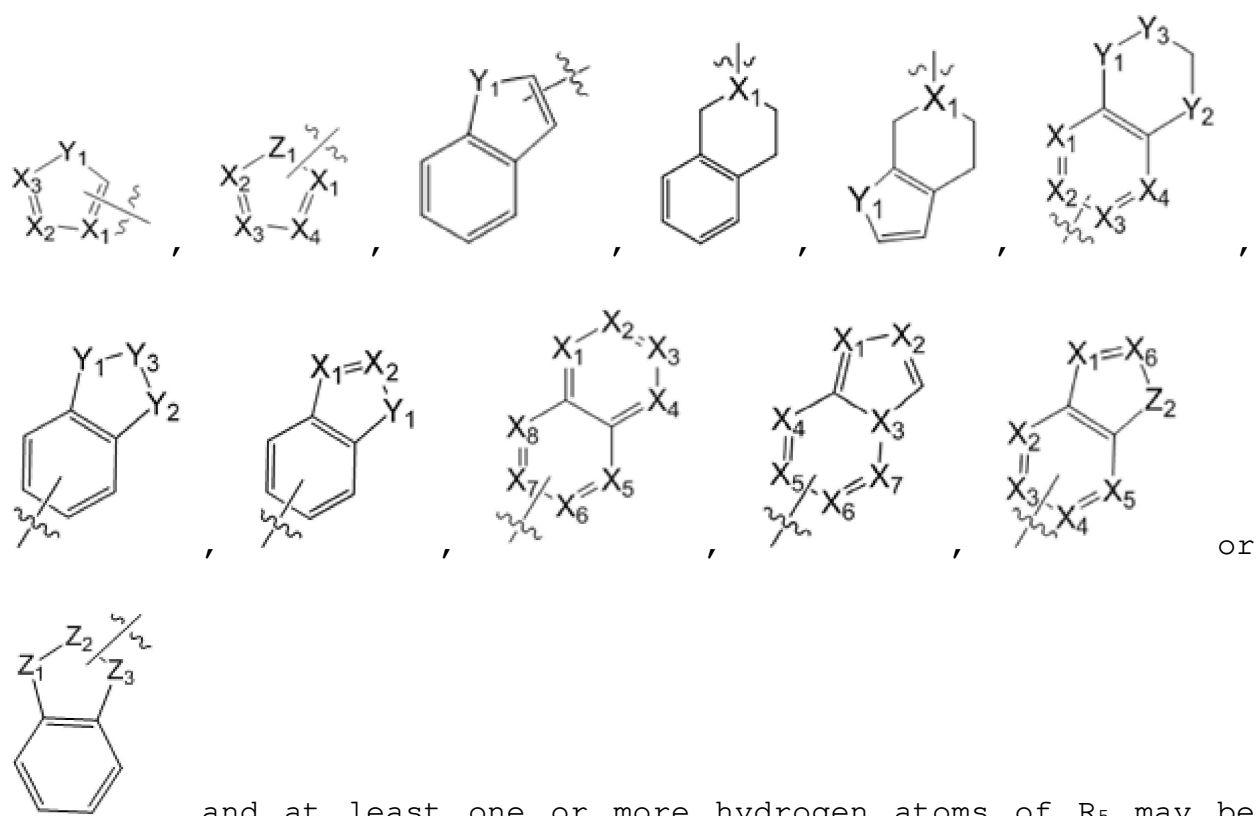
A₄ is C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene;

A₅ is -N(Ra)-, -N(Ra)-S(=O)₂-, -C(=O)-, -O-Ra-, -O-, or -S-, in which Ra of A₅ is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

R₅ is C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₂₋₁₀

heterocycloalkyl, C₂₋₁₀ heterocycloalkenyl,





, and at least one or more hydrogen atoms of R₅ may be substituted or unsubstituted with a halogen atom, NH₂, O-Ra (Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group) or C₁₋₁₀ alkyl group;

in each of R_{cy} and R₅, X₁ to X₈ are each independently N or CH;

Y₁ and Y₂ are each independently NH, O or S, and Y₃ is C=O;

Z₁ to Z₃ are each independently NH or CH₂; and

p, q, r, s and t are each independently an integer of 0 or 1.

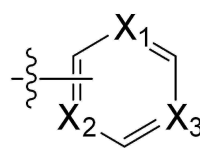
【Claim 2】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or

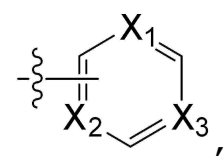
hydrates thereof according to claim 1,

wherein in formula X, R_1 to R_3 , A_1 to A_3 , R_{cy} , R_a , R_b , p , q and r are the same as defined in claim 1,

wherein R_x of formula X is R_{cy} , p , r and q are 0, R_{cy} is

, and X_1 to X_3 are CH, in which, if H is unsubstituted with R_4 , R_2 is Cl as a halogen atom;

R_x of formula X is R_{cy} , p and r are 0, q is 1, A_2 is $N(R_a)-$,

R_a is a hydrogen atom, R_{cy} is C_{2-10} heterocycloalkyl or , and if X_1 to X_3 are CH, R_2 is Cl as a halogen atom;

if R_x of formula X is R_3 ; p , q and r are 0; and R_3 is a hydrogen atom, R_2 is Cl as a halogen atom;

if R_x of formula X is R_3 ; p , q and r are 0; and R_3 is a hydrogen atom, R_1 is C_{2-12} heteroaryl group, in which at least one or more hydrogen atoms of C_{2-12} heteroaryl group may be each independently substituted with a halogen atom or $-O-R_a$ (in which R_a is C_{1-10} alkyl);

if R_x of formula X is R_3 ; p , q and r are 0; and R_3 is CN, R_2 is a hydrogen atom or Cl as a halogen atom;

if R_x of formula X is R_3 ; p , q and r are 0; and R_3 is a halogen atom, R_2 is Br as a halogen atom or C_{3-10} cycloalkyl group;

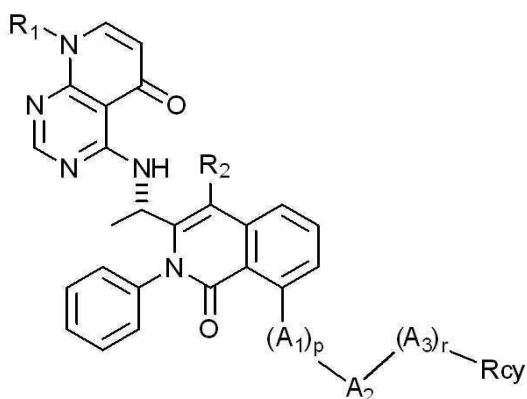
if Rx of formula X is R₃; p and r are 0, q is 1; A₂ is N(Ra)-, S-, O- or S(=O)₂-; R₃ is C₁₋₁₀ alkyl; and Ra is a hydrogen atom or C₁₋₁₀ alkyl, R₂ is Cl as a halogen atom; and

if Rx of formula X is R₃; p, r and q are 1; A₁ is C₁₋₁₀ alkylene; A₂ is O-; and A₃ is C₁₋₁₀ alkylene, R₃ is OH.

【Claim 3】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula 1-1 below:

[Formula 1-1]



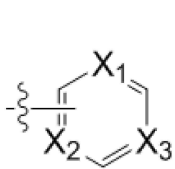
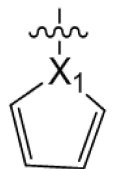
in above formula 1-1,

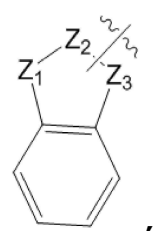
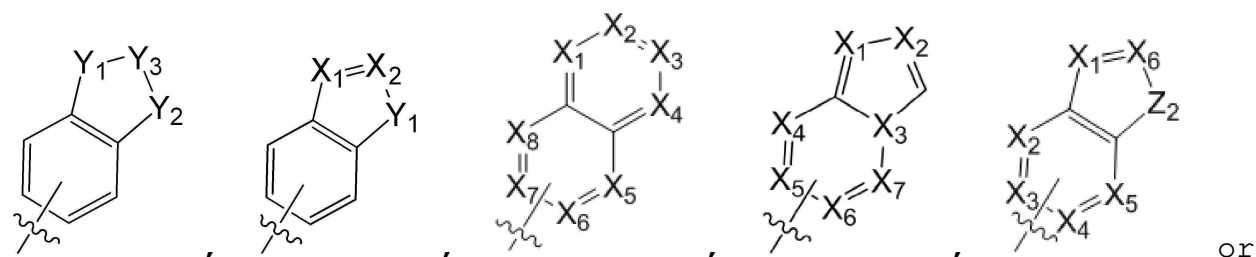
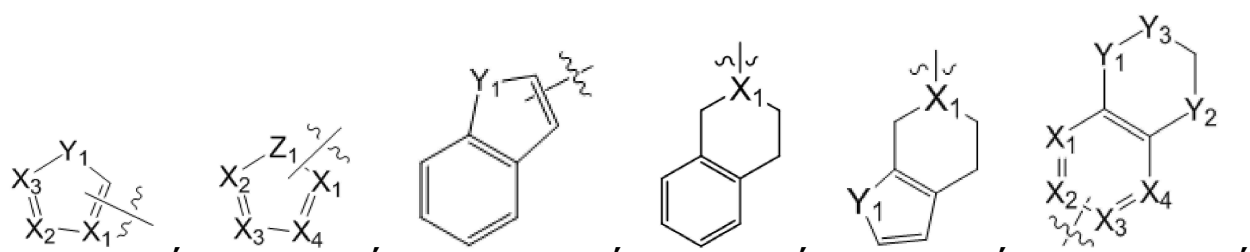
R₁ is H or C₂₋₁₂ heteroaryl group, in which at least one or more hydrogen atoms of the C₂₋₁₂ heteroaryl group may be each independently substituted with a halogen atom or -O-Ra (in which

Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group);

R₂ is H, a halogen atom or C₃₋₁₀ cycloalkyl group;

Rcy is C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₂₋₁₀

heterocycloalkyl, C₂₋₁₀ heterocycloalkenyl, , ,



at least one or more hydrogen atoms of Rcy may be substituted or unsubstituted with R₄;

R₄ is a halogen atom, -CN, -OH, NO₂, -CF₃, -O-Ra, -N(Ra)(Rb), -S(=O)(=N-Ra)-Rb, -S(Ra)₃, -S-Ra, S(=O)₂-Ra, -C(=O)-Ra, -C(=O)-N(Ra)(Rb), -C(=O)-O-Ra, -N(Ra)-C(=O)-Ra, -N(Ra)-C(=O)-O-Ra, -N(Ra)-S(=O)₂-Rb, C₁₋₁₀ alkyl group or -(A₄)_s-(A₅)_t-R₅, which are same

as or different from each other if R_4 substituted for Cy is 2 or more, and Ra and Rb of R_4 are each independently H, NH_2 , OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

in R_4 , at least one or more hydrogen atoms of C_{1-10} alkyl group may be substituted or unsubstituted with OH, C_{1-10} alkoxy, CN, $-\text{CF}_3$ or $-\text{N}(\text{Ra})(\text{Rb})$, in which Ra and Rb of R_4 are each independently H, NH_2 , OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

A_1 and A_3 are each independently C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene, in which at least one or more hydrogen atoms of A_1 and A_3 may be each independently substituted with a halogen atom, $-\text{OH}$, NO_2 or $-\text{CF}_3$;

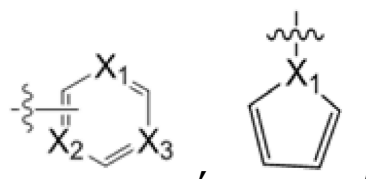
A_2 is $\text{N}(\text{Ra})-$, $\text{N}(\text{Ra})-\text{C}(=\text{O})-$, $\text{N}(\text{Ra})-\text{C}(=\text{O})-\text{O}-$, $\text{C}(=\text{O})-\text{N}(\text{Ra})-$, $\text{N}(\text{Ra})-\text{S}(=\text{O})-$, $\text{N}(\text{Ra})-\text{S}(=\text{O})_2-$, $\text{C}(\text{Ra})=\text{N}-$, $\text{S}(=\text{O})(=\text{N}-\text{Ra})-$, $\text{C}(=\text{O})-$, $\text{C}(=\text{O})-\text{O}-$, $\text{O}-$, $\text{S}-$, $\text{S}(=\text{O})-$, $\text{S}(=\text{O})_2-$ or $\text{B}(\text{Ra})-$, in which Ra of A_2 is H, NH_2 , OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

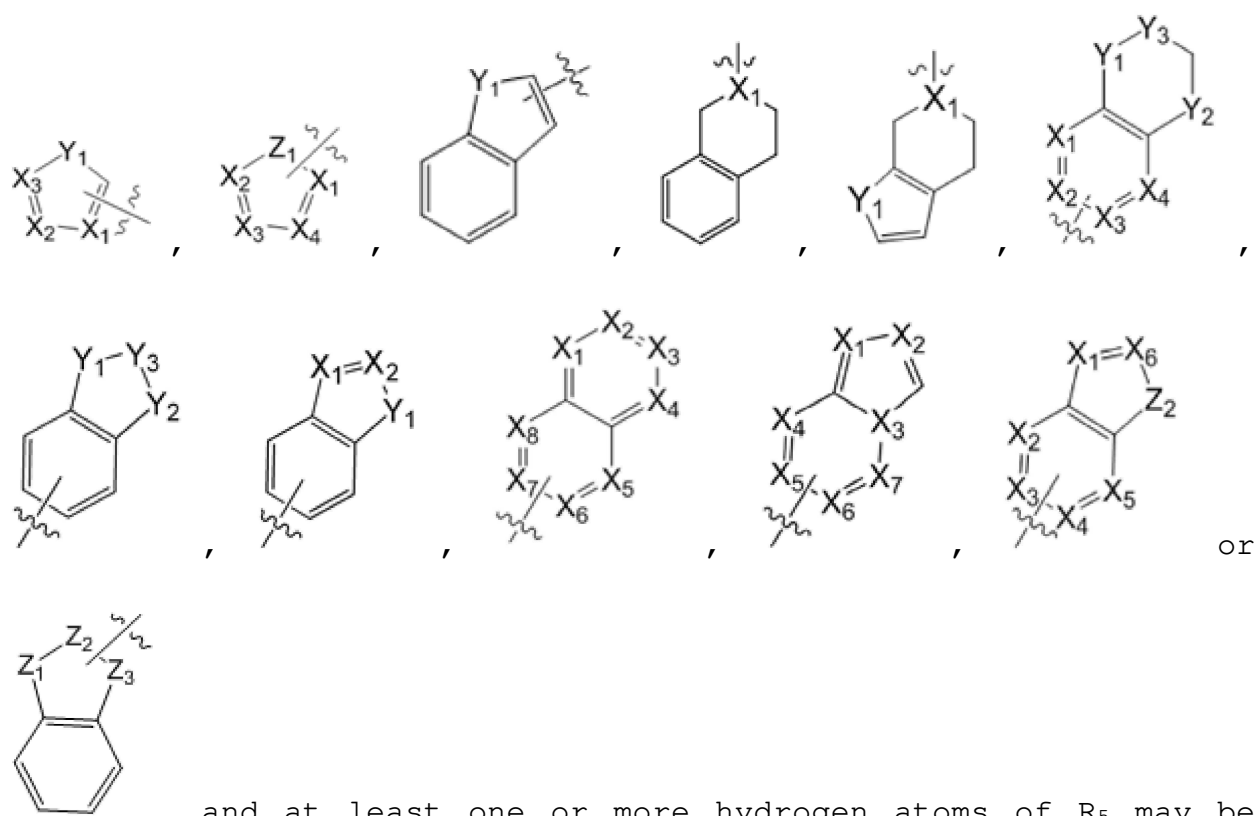
A_4 is C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene;

A_5 is $\text{N}(\text{Ra})-$, $\text{N}(\text{Ra})-\text{S}(=\text{O})_2-$, $\text{C}(=\text{O})-$, $\text{O}-\text{Ra}-$, $\text{O}-$, or $\text{S}-$, in which Ra of A_5 is H, NH_2 , OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

R_5 is C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{2-10}

heterocycloalkyl, C_{2-10} heterocycloalkenyl,





, and at least one or more hydrogen atoms of R₅ may be substituted with a halogen atom, NH₂, OH or C₁₋₁₀ alkyl group;

in each of R_{cy} and R₅, X₁ to X₈ are each independently N or CH;

Y₁ and Y₂ are each independently NH, O or S, and Y₃ is C=O;

Z₁ to Z₃ are each independently NH or CH₂; and

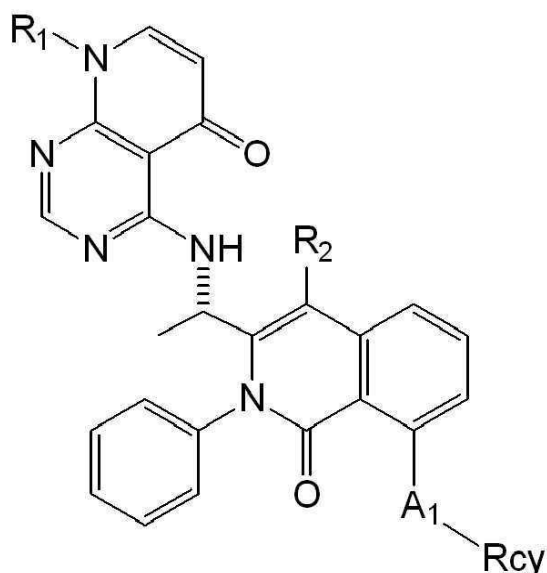
p, r, s and t are each independently an integer of 0 or 1.

【Claim 4】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula

1-2 below:

[Formula 1-2]

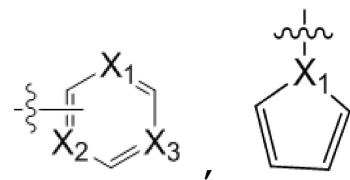


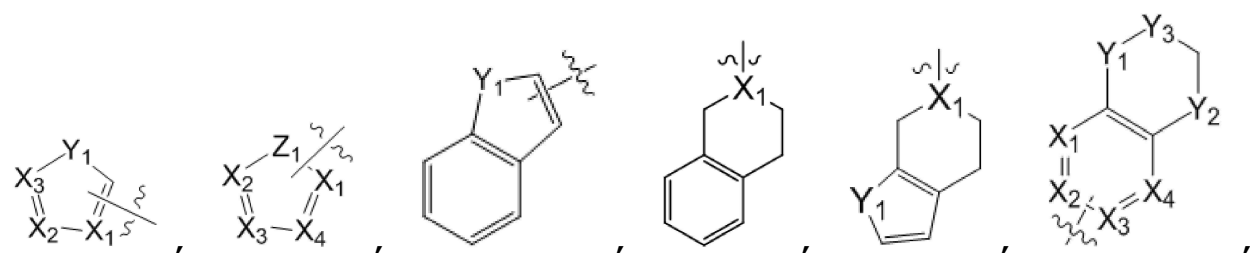
in above formula 1-2,

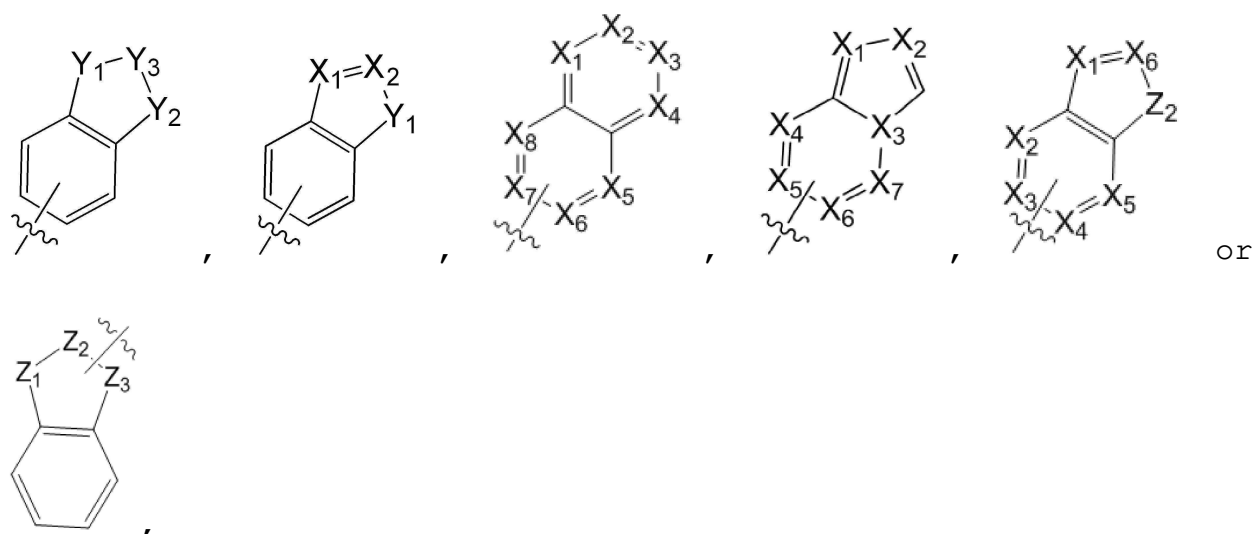
R_1 is H or C_{2-12} heteroaryl group, in which at least one or more hydrogen atoms of the C_{2-12} heteroaryl group may be each independently substituted with a halogen atom or $-O-R_a$ (in which R_a is H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group);

R_2 is H, a halogen atom or C_{3-10} cycloalkyl group;

R_{cy} is C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{2-10}

heterocycloalkyl, C_{2-10} heterocycloalkenyl, ,





at least one or more hydrogen atoms of Rcy may be substituted or unsubstituted with R₄;

R₄ is a halogen atom, -CN, -OH, NO₂, -CF₃, O-Ra, -N(Ra)(Rb), S(=O)(=N-Ra)-Rb, S(Ra)₃, S-Ra, S(=O)₂-Ra, C(=O)-Ra, C(=O)-N(Ra)(Rb), C(=O)-O-Ra, N(Ra)-C(=O)-Ra, N(Ra)-C(=O)-O-Ra, N(Ra)-S(=O)₂-Rb, C₁₋₁₀ alkyl group or -(A₄)_s-(A₅)_t-R₅, which are same as or different from each other if R₄ substituted for Cy is 2 or more, and Ra and Rb of R₄ are each independently H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

in R₄, at least one or more hydrogen atoms of C₁₋₁₀ alkyl group may be substituted with OH, C₁₋₁₀ alkoxy, CN, -CF₃ or -N(Ra)(Rb), in which Ra and Rb are each independently H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

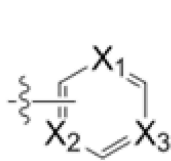
A₁ is C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, in which at least one or more hydrogen atoms of A₁ may be each independently

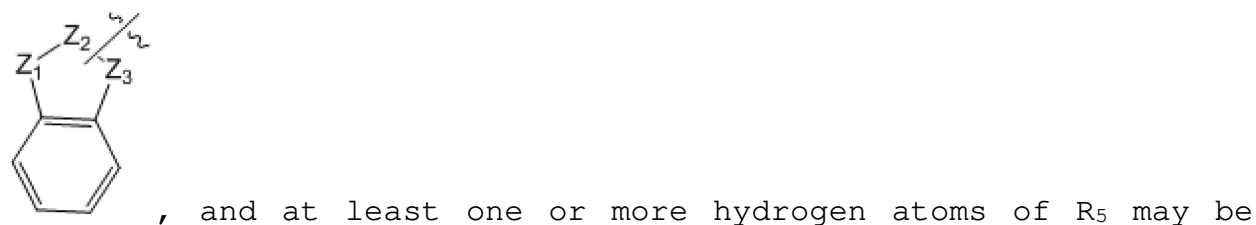
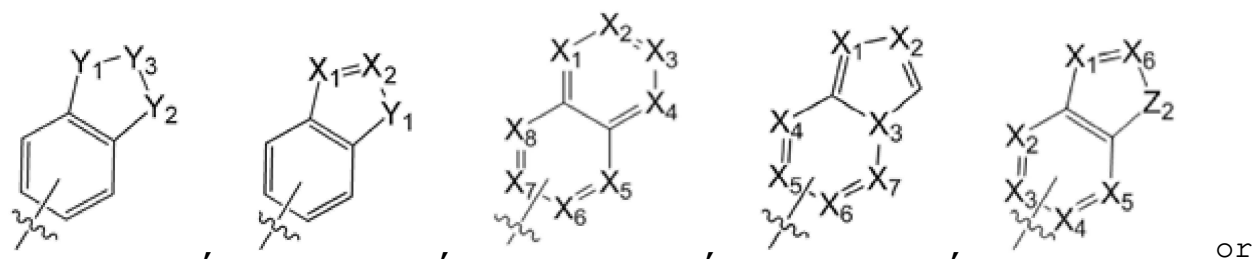
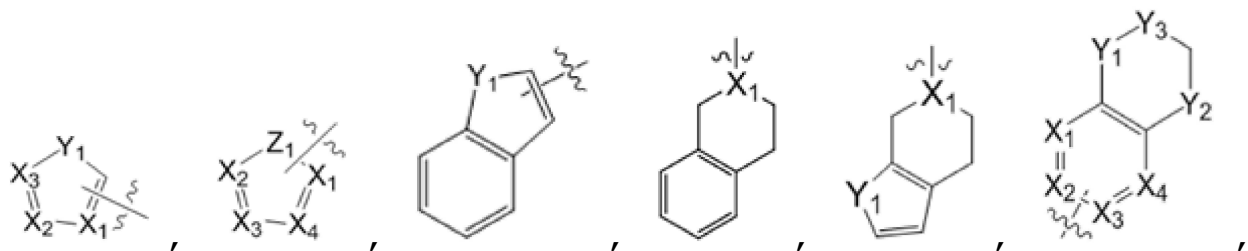
substituted or unsubstituted with a halogen atom, -OH, NO₂ or -CF₃;

A₄ is C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene;

A₅ is N(Ra)-, N(Ra)-S(=O)₂-, C(=O)-, O-Ra-, O-, or S-, in which Ra of A₅ is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group;

R₅ is C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₂₋₁₀

heterocycloalkyl, C₂₋₁₀ heterocycloalkenyl, , ,



substituted with a halogen atom, NH₂, OH or C₁₋₁₀ alkyl group;

in each of R_{cy} and R₅, X₁ to X₈ are each independently N or CH;

Y₁ and Y₂ are each independently NH, O or S, and Y₃ is C=O;

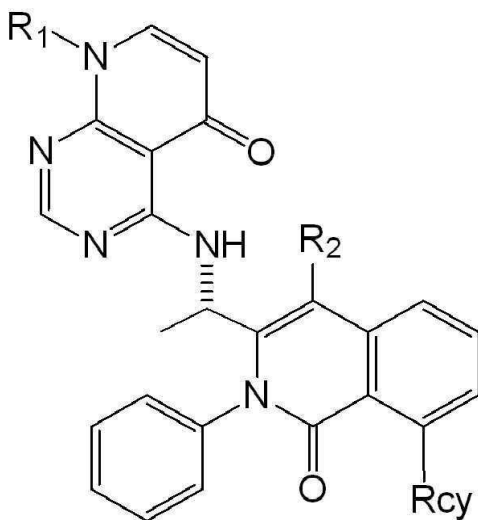
Z₁ to Z₃ are each independently NH or CH₂; and

s and t are each independently an integer of 0 or 1.

【Claim 5】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula 1-3 below:

[Formula 1-3]

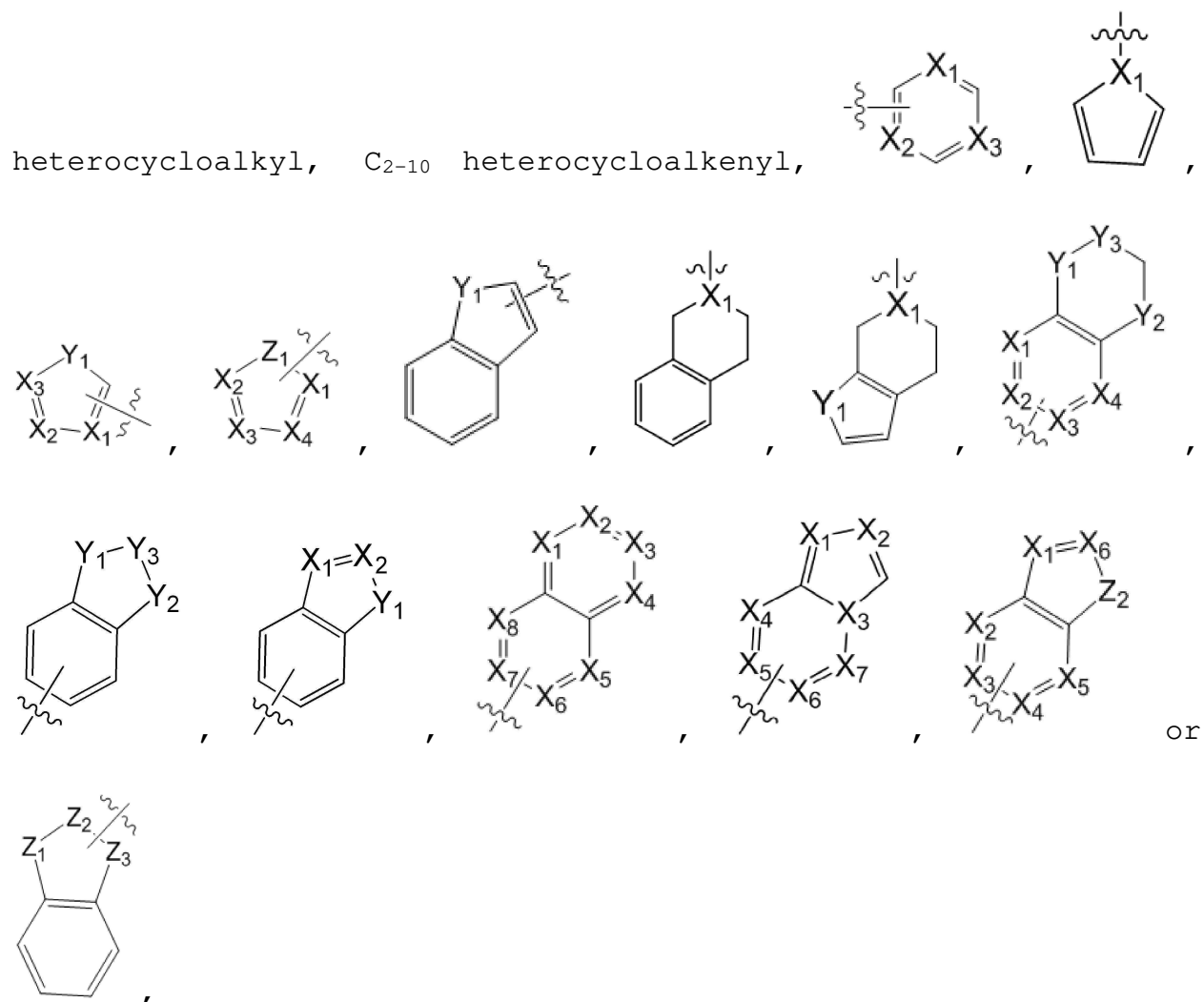


in above formula 1-3,

R₁ is H or C₂₋₁₂ heteroaryl group, in which at least one or more hydrogen atoms of the C₂₋₁₂ heteroaryl group may be each independently substituted with a halogen atom or -O-Ra (in which Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group);

R₂ is H, a halogen atom or C₃₋₁₀ cycloalkyl group;

Rcy is C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, C₂₋₁₀



at least one or more hydrogen atoms of Rcy may be substituted or unsubstituted with R₄;

R₄ is a halogen atom, -CN, -OH, NO₂, -CF₃, O-Ra, -N(Ra)(Rb), S(=O)(=N-Ra)-Rb, S(Ra)₃, S-Ra, S(=O)₂-Ra, C(=O)-Ra, C(=O)-N(Ra)(Rb), C(=O)-O-Ra, N(Ra)-C(=O)-Ra, N(Ra)-C(=O)-O-Ra, N(Ra)-S(=O)₂-Rb, C₁₋₁₀ alkyl group or -(A₄)_s-(A₅)_t-R₅, which are same as or different from each other if R₄ substituted for Cy is 2 or more, and Ra and Rb are each independently H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl

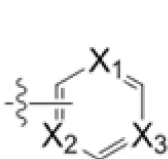
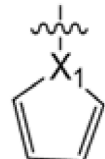
group;

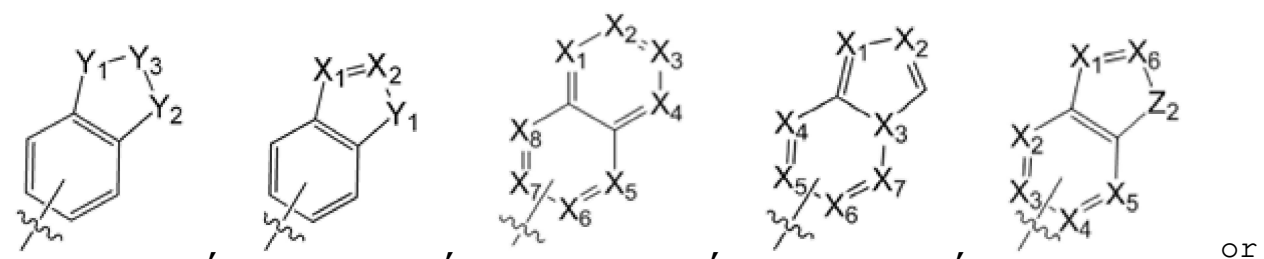
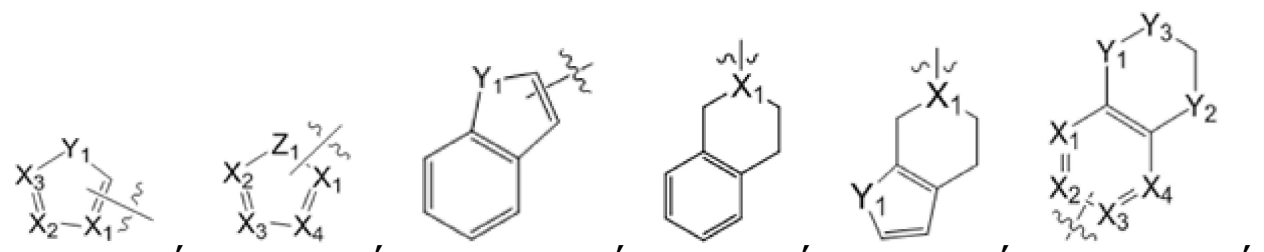
in R_4 , at least one or more hydrogen atoms of C_{1-10} alkyl group may be substituted or unsubstituted with OH, C_{1-10} alkoxy, CN, $-CF_3$ or $-N(Ra)(Rb)$, in which Ra and Rb are each independently H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group;

A_4 is C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene;

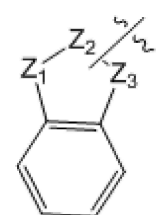
A_5 is $N(Ra)-$, $N(Ra)-S(=O)_2-$, $C(=O)-$, $O-Ra-$, $O-$, or $S-$, in which Ra of A_5 is H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group;

R_5 is C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{2-10}

heterocycloalkyl, C_{2-10} heterocycloalkenyl, , ,



or



, and at least one or more hydrogen atoms of R_5 may be

substituted or unsubstituted with a halogen atom, NH₂, OH or C₁₋₁₀ alkyl group;

in each of R_{cy} and R₅, X₁ to X₈ are each independently N or CH;

Y₁ and Y₂ are each independently NH, O or S, and Y₃ is C=O;

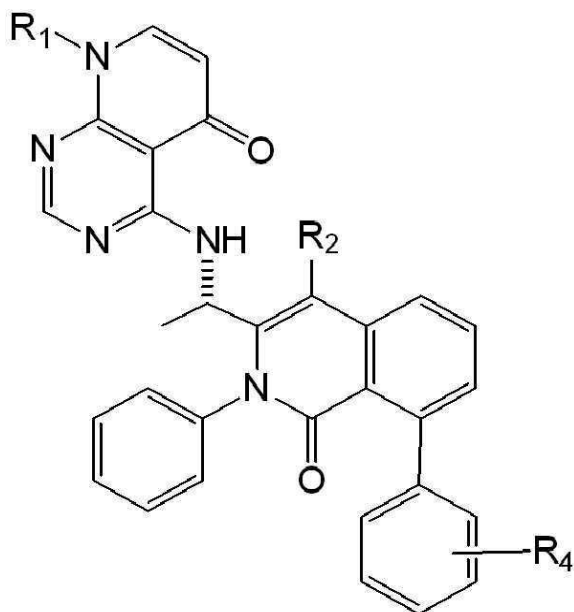
Z₁ to Z₃ are each independently NH or CH₂; and

s and t are each independently an integer of 0 or 1.

【Claim 6】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula 1-4 below:

[Formula 1-4]



in above formula 1-4,

R_1 is H or C_{2-12} heteroaryl group, in which at least one or more hydrogen atoms of the C_{2-12} heteroaryl group may be each independently substituted with a halogen atom or $-O-Ra$ (in which Ra is H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group);

R_2 is H, a halogen atom or C_{3-10} cycloalkyl group;

R_4 is a halogen atom, $-CN$, $-OH$, NO_2 , $-CF_3$, $O-Ra$, $-N(Ra)(Rb)$, $S(=O)(=N-Ra)-Rb$, $S(Ra)_3$, $S-Ra$, $S(=O)_2-Ra$, $C(=O)-Ra$, $C(=O)-N(Ra)(Rb)$, $C(=O)-O-Ra$, $N(Ra)-C(=O)-Ra$, $N(Ra)-C(=O)-O-Ra$, $N(Ra)-S(=O)_2-Rb$, C_{1-10} alkyl group or $-(A_4)_s-(A_5)_t-R_5$, which are same as or different from each other if R_4 is 2 or more, and Ra and Rb of R_4 are each independently H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group;

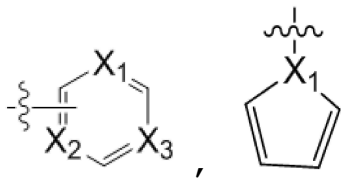
in R_4 , at least one or more hydrogen atoms of C_{1-10} alkyl group may be substituted or unsubstituted with OH, C_{1-10} alkoxy, CN, $-CF_3$ or $-N(Ra)(Rb)$, in which Ra and Rb are each independently H, NH_2 ,

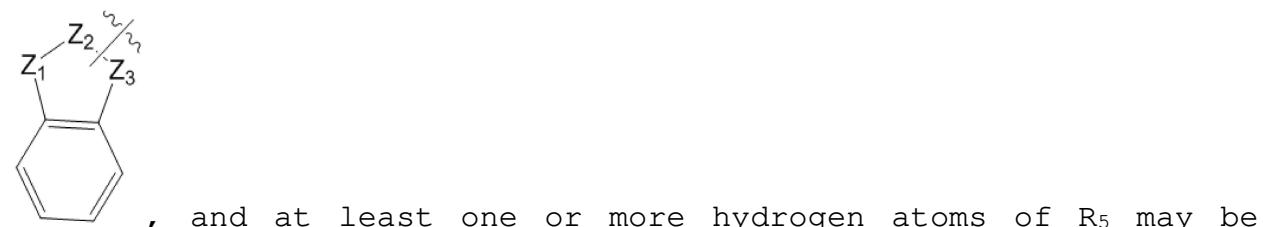
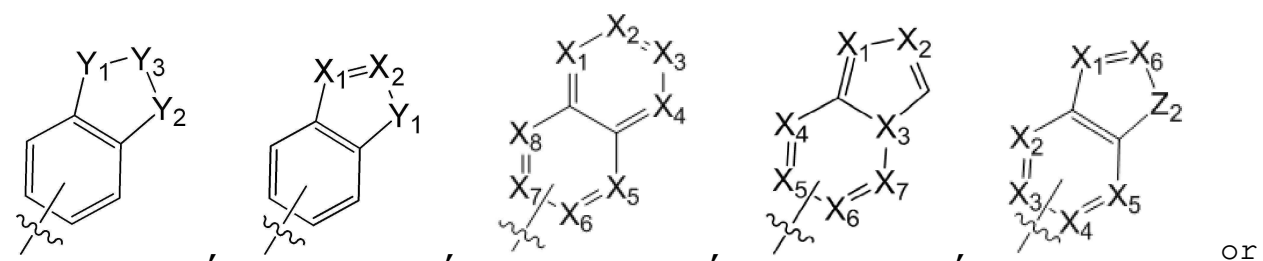
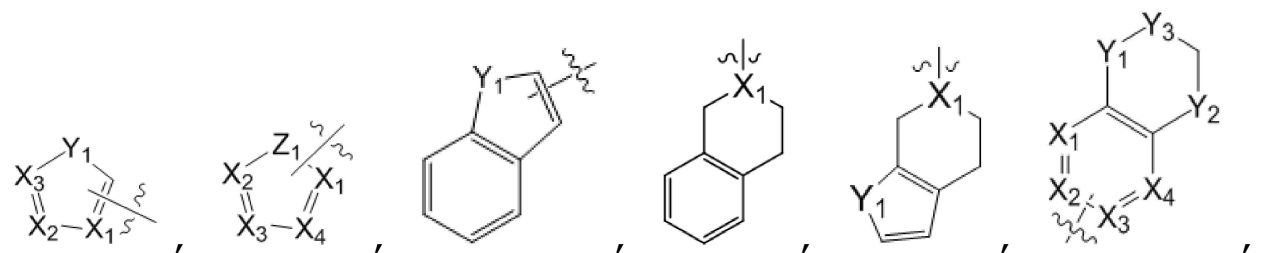
OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

A_4 is C_{1-10} alkylene, C_{2-10} alkenylene or C_{2-10} alkynylene;

A_5 is $\text{N}(\text{Ra})-$, $\text{N}(\text{Ra})-\text{S}(=\text{O})_2-$, $\text{C}(=\text{O})-$, $\text{O}-\text{Ra}-$, $\text{O}-$, or $\text{S}-$, in which Ra of A_5 is H, NH_2 , OH, $-\text{CF}_3$ or C_{1-10} alkyl group;

R_5 is C_{3-10} cycloalkyl, C_{3-10} cycloalkenyl, C_{2-10}

heterocycloalkyl, C_{2-10} heterocycloalkenyl, ,



, and at least one or more hydrogen atoms of R_5 may be substituted or unsubstituted with a halogen atom, NH_2 , OH or C_{1-10} alkyl group;

X_1 to X_8 are each independently N or CH;

Y_1 and Y_2 are each independently NH, O or S, and Y_3 is $\text{C}=\text{O}$;

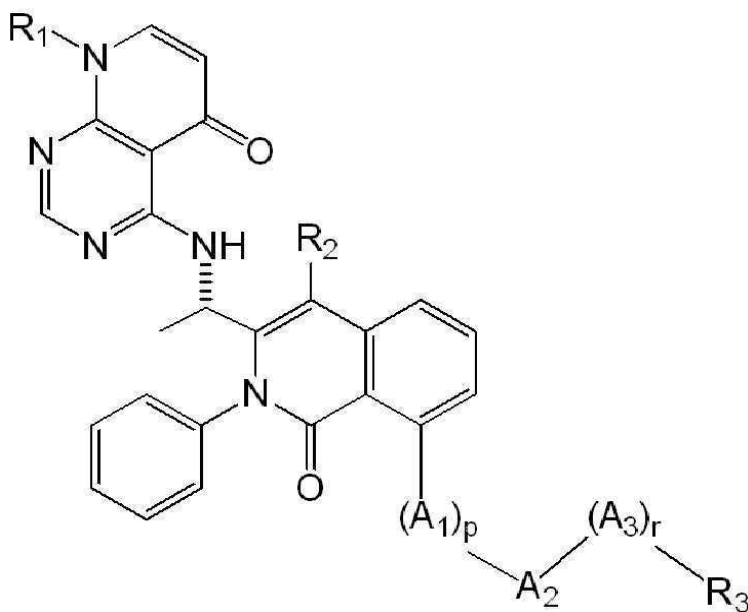
Z_1 to Z_3 are each independently NH or CH_2 ; and

s and t are each independently an integer of 0 or 1.

【Claim 7】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula 2-1 below:

[Formula 2-1]



in above formula 2-1,

R_1 is H or C_{2-12} heteroaryl group, in which at least one or more hydrogen atoms of the C_{2-12} heteroaryl group may be each independently substituted with a halogen atom or $-O-R_a$ (in which R_a is H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group);

R₂ is H, a halogen atom or C₃₋₁₀ cycloalkyl group;

R₃ is H, a halogen atom, CN, OH, O-Ra (in which Ra is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group), NH₂, -CF₃ or C₁₋₁₀ alkyl group;

A₁ and A₃ are each independently C₁₋₁₀ alkylene, C₂₋₁₀ alkenylene or C₂₋₁₀ alkynylene, in which at least one or more hydrogen atoms of A₁ and A₃ may be each independently substituted or unsubstituted with a halogen atom, -OH, NO₂ or -CF₃;

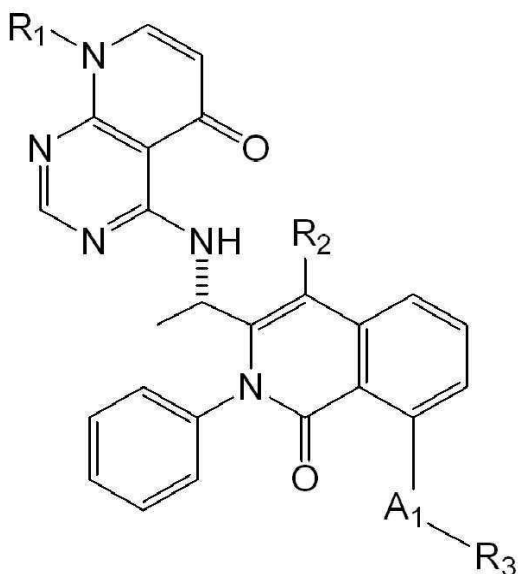
A₂ is N(Ra)-C(=O)-, N(Ra)-C(=O)-O-, C(=O)-N(Ra)-, N(Ra)-S(=O)-, N(Ra)-S(=O)₂-, C(Ra)=N-, S(=O)(=N-Ra)-, C(=O)-, C(=O)-O-, S(=O)- or B(Ra)-, in which Ra of A₂ is H, NH₂, OH, -CF₃ or C₁₋₁₀ alkyl group; and

p and r are each independently 0 or 1.

【Claim 8】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to claim 1, wherein the compound represented by above formula X is a compound represented by formula 2-2 below:

[Formula 2-2]



in above formula 2-2,

R_1 is H or C_{2-12} heteroaryl group, in which at least one or more hydrogen atoms of the C_{2-12} heteroaryl group may be each independently substituted with a halogen atom or $-O-R_a$ (in which R_a is H, NH_2 , OH, $-CF_3$ or C_{1-10} alkyl group);

R_2 is H, a halogen atom or C_{3-10} cycloalkyl group;

if A_1 is C_{2-10} alkenylene or C_{2-10} alkynylene, R_3 is H, a halogen atom, CN, OH, $O-R_a$ (in which R_a is H, OH, $-CF_3$ or C_{1-10} alkyl group), NH_2 , $-CF_3$ or C_{1-10} alkyl group; and

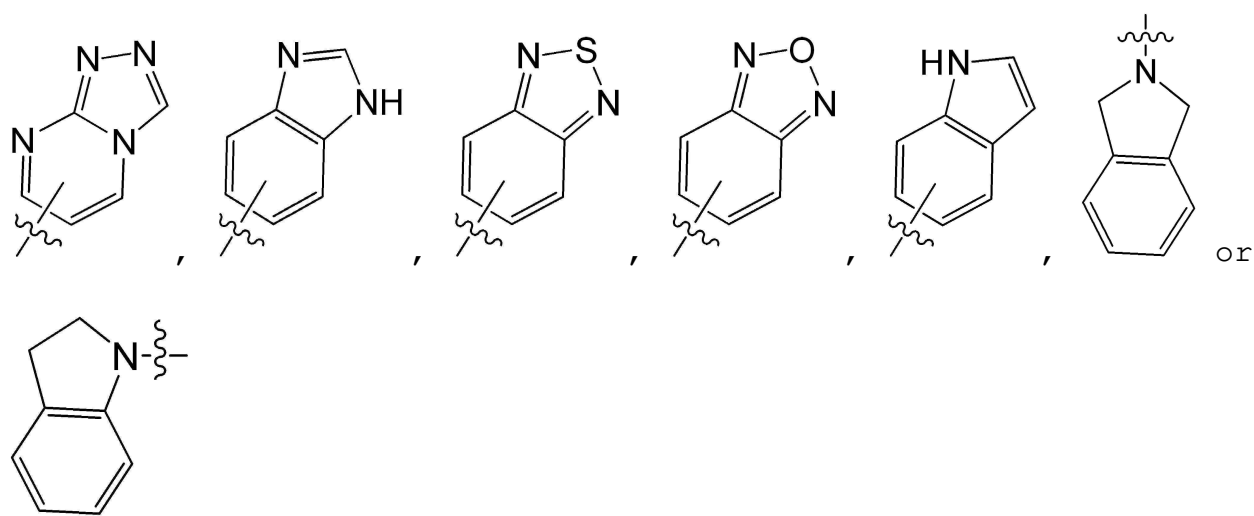
if A_1 is C_{1-10} alkylene, R_3 is a halogen atom, CN, OH, $O-R_a$ (in which R_a is H, OH, $-CF_3$ or C_{1-10} alkyl group), NH_2 or $-CF_3$.

【Claim 9】

The pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or

C₂₋₁₀ heterocycloalkylene, C₂₋₁₀ heterocycloalkenyl, 





【Claim 10】

The pyrido-pyrimidine derivative represented by formula X, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof of claim 1, wherein the compound represented by above formula X is any one of compounds below:

[001] (S)-4-((1-(4-bromo-8-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[002] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[003] (S)-4-((1-(8-(6-(1H-pyrrol-1-yl)pyridin-3-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[004] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[005] (S)-4-((1-(4-chloro-8-(1-methyl-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[006] (S)-4-((1-(8-(benzofuran-2-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[007] (S)-4'-chloro-3'-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2'-phenyl-3,4-dihydro-1H-(2,8'-biisoquinolin)-1'(2'H)-one

[008] 4-(((1S)-1-(4-chloro-1-oxo-2-phenyl-8-(3a,4,7,7a-tetrahydro-1H-isoindol-2(3H)-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[009] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(pyridin-4-yl)piperazin-1-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[010] (S)-4-((1-(8-([1,4'-bipiperidin]-1'-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[011] (S)-4-((1-(4-chloro-8-(4-(1-methylpiperidin-4-yl)piperazin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[012] (S)-4-((1-(1-oxo-2-phenyl-8-(pyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[013] (S)-4-((1-(8-(6-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[014] (S)-4-((1-(8-(4-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[015] (S)-4-((1-(8-(1-methyl-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[016] (S)-4-((1-(4-bromo-8-(4-(dimethylamino)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[017] (S)-4-((1-(4-bromo-8-(6-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[018] (S)-4-((1-(4-bromo-8-(4-fluorophenyl)-1-oxo-2-phenyl-

1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[019] (S)-4-((1-(4-bromo-8-(1-methyl-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[020] (S)-4-((1-(8-(4-(dimethylamino) phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[021] (S)-4-((1-(4-chloro-1-oxo-8-(2-oxo-2,3-dihydro-1H-benzo[d]imidazol-5-yl)-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[022] (S)-4-((1-(4-chloro-8-(2-methylbenzo[d]oxazol-6-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[023] (S)-4-(1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl) benzonitrile

[024] (S)-4-((1-(8-(benzo[d]isoxazol-6-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[025] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrrolo[2,3-b]pyridin-5-yl)-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[026] (S)-4-((1-(4-chloro-8-(2-(2-hydroxypropan-2-yl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[027] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrazolo[4,3-c]pyridin-6-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[028] (S)-4-((1-(4-chloro-8-(5,6-dimethoxypyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[029] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(thiazol-2-yl)phenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[030] (S)-4-((1-(4-chloro-8-(5-methoxypyrimidin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[031] (S)-6-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)nicotinonitrile

[032] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(quinazolin-6-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[033] (S)-4-((1-(4-chloro-8-(4-(isoxazol-3-yl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[034] (S)-4-((1-(8-(6-(tert-butyl)pyridin-3-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[035] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidin-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[036] (S)-4-((1-(4-chloro-8-(3-fluoro-4,5-dihydroxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[037] (S)-4-((1-(8-([1,2,4]triazolo[4,3-a]pyridin-6-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[038] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[039] (S)-2-(5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)pyrimidin-2-yl)acetonitrile

[040] (S)-4-((1-(8-([1,2,4]triazolo[4,3-a]pyrimidin-6-yl)-

4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[041] (S)-4-((1-(4-chloro-8-(5-methoxypyridin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[042] (S)-4-((1-(8-([1,2,4]triazolo[1,5-a]pyridin-6-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[043] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)-8-(5-methoxypyrimidin-2-yl)pyrido[2,3-d]pyrimidin-5(8H)-one

[044] (S)-5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)pyrimidine-2-carbonitrile

[045] (S)-4-((1-(4-chloro-8-(6-methoxypyrimidin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[046] (S)-4-((1-(4-chloro-8-(6-cyclopropylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[047] (S)-5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-

dihydroisoquinolin-8-yl)picolinic acid

[048] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(quinoxalin-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[049] (S)-4-((1-(4-chloro-8-(2,6-dimethoxypyrimidin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[050] (S)-4-((1-(4-chloro-8-(6-hydroxypyrimidin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[051] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(5-(trifluoromethyl)pyrazin-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[052] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(5-(trifluoromethyl)pyrimidin-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[053] (S)-4-((1-(4-chloro-8-(5-fluoropyrimidin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[054] (S)-4-((1-(4-chloro-8-(2-cyclobutylpyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[055] (S)-4-((1-(4-chloro-8-(2-(methoxymethyl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[056] (S)-4-((1-(8-(2-aminopyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[057] 4-(((1S)-1-(4-chloro-8-(4-(1-hydroxyethyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[058] (S)-4-((1-(4-chloro-8-(6-hydroxy-5-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[059] (S)-4-((1-(4-chloro-8-(4-cyclopentylpyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[060] (S)-4-((1-(8-(benzo[d][1,3]dioxol-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[061] (S)-4-((1-(4-chloro-8-(6-methoxy-5-nitropyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[062] (S)-4-((1-(4-chloro-1-oxo-2,8-diphenyl-1,2-

dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-
5 (8H) -one

[063] (S) -4- ((1- (4-chloro-8- (4-fluorophenyl) -1-oxo-2-
phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-
d]pyrimidin-5 (8H) -one

[064] (S) -4- ((1- (4-chloro-8- (4-methoxyphenyl) -1-oxo-2-
phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-
d]pyrimidin-5 (8H) -one

[065] (S) -4- ((1- (8-chloro-4-cyclopropyl-1-oxo-2-phenyl-1,2-
dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-
5 (8H) -one

[066] (S) -4- ((1- (4-chloro-8-cyclopropyl-1-oxo-2-phenyl-1,2-
dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-
5 (8H) -one

[067] (S) -4- (4-chloro-1-oxo-3- (1- ((5-oxo-5,8-
dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-
dihydroisoquinolin-8-yl) -3-methylbenzonitrile

[068] (S) -4- ((1- (4-chloro-1-oxo-2-phenyl-8- (4-
(trifluoromethyl) phenyl) -1,2-dihydroisoquinolin-3-
yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5 (8H) -one

[069] (S) -1,4'-dichloro-3'- (1- ((5-oxo-5,8-
dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2'-phenyl- (4,8'-

biisoquinolin)-1' (2'H)-one

[070] (S,E)-4-((1-(4-chloro-1-oxo-2-phenyl-8-styryl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[071] (S)-4-((1-(4-chloro-8-(3,4-dichlorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[072] (S)-4-((1-(4-chloro-8-(4-(dimethylamino)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[073] (S)-4-((1-(4-chloro-8-(1H-indol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[074] (S)-4-((1-(4-chloro-8-(3-methyl-1H-indol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[075] (S)-4-((1-(4-chloro-8-(4-morpholinophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[076] (S)-4-((1-(4-chloro-8-(4-isopropylpiperidin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[077] tert-butyl (S)-(1-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)piperidin-4-yl)carbamate

[078] (S)-4-((1-(4-chloro-8-(4-(2-hydroxyphenyl)piperazin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[079] (S)-3-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)benzaldehyde

[080] (S)-4-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)benzamide

[081] (S)-4-(1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)benzamide

[082] (S)-4-((1-(4-chloro-8-(1,5-dimethyl-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[083] (S)-4-((1-(4-chloro-8-(1-(2-(dimethylamino)ethyl)-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[084] (S)-4-((1-(4-chloro-8-(4-chlorophenyl)-1-oxo-2-

phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[085] (S)-4-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl) benzaldehyde

[086] (S)-4-((1-(4-chloro-8-(6-(dimethylamino)pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[087] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(pyrrolidin-1-yl)phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[088] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(piperidin-1-yl)phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[089] (S)-4-((1-(4-chloro-8-(1H-indol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[090] (S)-4-((1-(8-(4-(1-methylpiperidin-4-yl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[091] (S)-2-(3-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl)-2-phenyl-1,2-

dihydroisoquinolin-8-yl)phenyl)acetonitrile

[092] (S)-4-((1-(8-(4-(5-amino-1,3,4-thiadiazol-2-yl)phenyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[093] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(thiophen-2-yl)phenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[094] (S)-4-((1-(8-(4-aminophenyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[095] (S)-4-((1-(4-chloro-8-(4-mercaptophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[096] (S)-4-((1-(4-chloro-8-(1-cyclopropyl-1H-pyrazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[097] (S)-4-((1-(4-chloro-8-(3-chlorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[098] (S)-4-((1-(4-chloro-8-(5-methylfuran-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[099] (S)-4-((1-(4-chloro-8-(4-chloro-3-methoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[100] (S)-4-((1-(8-(4-chloro-3-methoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[101] (S)-4-((1-(4-chloro-8-(6-isopropoxypyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[102] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[103] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(3,4,5-trimethoxyphenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[104] (S)-4-((1-(4-chloro-8-(3-chloro-5-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[105] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(pyridin-4-yl)phenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[106] (S)-4-((1-(4-chloro-8-(2-chloro-3-fluorophenyl)-1-

oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[107] (S)-4-((1-(4-chloro-8-(2-chloro-5-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[108] (S)-4-((1-(4-chloro-8-(3-fluoro-5-hydroxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[109] (S)-4-((1-(4-chloro-8-(3-fluoro-2-methylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[110] (S)-4-((1-(4-chloro-8-(2-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[111] (S)-4-((1-(4-chloro-8-(1-methyl-1H-benzo[d]imidazol-6-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[112] (S)-4-((1-(4-chloro-8-(2-(dimethylamino)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[113] (S)-4-((1-(4-chloro-8-(imidazo[1,2-a]pyridin-6-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-

d]pyrimidin-5(8H)-one

[114] (S)-4-((1-(4-chloro-8-(1-methyl-1H-benzo[d]imidazol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[115] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-phenylpyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[116] (S)-4-((1-(4-chloro-8-(1-methyl-1H-indol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[117] (S)-4-((1-(4-chloro-8-(furan-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[118] (S)-4-((1-(4-chloro-8-(4-cyclobutylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[119] (S)-4-((1-(4-chloro-8-(5-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[120] (S)-4-((1-(4-chloro-8-(3,4-dihydro-2H-benzo[b][1,4]oxazin-7-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[121] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(quinolin-6-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[122] (S)-4-((1-(4-chloro-8-(2-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[123] (S)-4-((1-(4-chloro-8-(3-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[124] (S)-4-((1-(4-chloro-8-(3,5-difluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[125] (S)-4-((1-(8-(1H-benzo[d]imidazol-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[126] (S)-4-((1-(4-chloro-8-(4-hydroxy-3,5-dimethylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[127] (S)-4-((1-(4-chloro-8-(5-fluoro-2-methylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[128] (S)-4-((1-(4-chloro-8-(4-fluoro-3-methylphenyl)-1-

oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[129] (S)-4-((1-(4-chloro-8-(2,3-difluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[130] (S)-4-((1-(4-chloro-8-(4-(1-methylpiperidin-4-yl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[131] (S)-4-((1-(4-chloro-8-(4-fluoro-2-methylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[132] (S)-4-((1-(4-chloro-8-(2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-7-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[133] (S)-4-((1-(4-chloro-8-(6-methoxypyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[134] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[135] (S)-4-((1-(4-chloro-8-(2-methyl-1H-benzo[d]imidazol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[136] (S)-4-((1-(4-chloro-8-(2-methylpyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[137] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(quinoxalin-6-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[138] tert-butyl (S)-4-(4-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)phenyl)piperazine-1-carboxylate

[139] (S)-4-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-N,N-dimethylbenzamide

[140] (S)-4-((1-(4-chloro-8-(5-chloro-2-fluorophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[141] (S)-4-((1-(4-chloro-8-(4-cyclopropylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[142] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-vinyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[143] (S)-4-((1-(4-chloro-8-(4-(methylthio)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[144] (S)-4-((1-(8-(4-(tert-butylthio)phenyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[145] (S)-4-((1-(4-chloro-8-(4-(morpholine-4-carbonyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[146] (S)-4-((1-(8-(2-(benzyloxy)pyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[147] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-(2,2,2-trifluoroethoxy)pyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[148] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(piperazin-1-yl)phenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[149] (S)-4-((1-(4-chloro-8-(2-methoxypyridin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)-8-(2-methoxypyridin-4-yl)pyrido[2,3-d]pyrimidin-5(8H)-one

[150] (S)-4-((1-(4-chloro-8-(2-methoxypyridin-4-yl)-1-oxo-

2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[151] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(propylthio)phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[152] (S)-4-((1-(4-chloro-8-(4-(cyclopropylthio)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[153] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(trifluoromethyl)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[154] (S)-4-((1-(4-chloro-8-(4-fluoro-3,5-dimethoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[155] (S)-4-((1-(4-chloro-8-(3,4-dimethoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[156] (S)-4-((1-(4-chloro-8-(cyclopent-1-en-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[157] (S)-4-((1-(4-chloro-8-(3-isopropoxy-5-methoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[158] (S)-4-((1-(4-chloro-8-(3-methoxy-5-(trifluoromethoxy)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[159] (S)-4-((1-(4-chloro-8-(3-methoxy-4-(trifluoromethoxy)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[160] (S)-4-((1-(4-chloro-8-(4-(5-methyl-1,2,4-oxadiazol-3-yl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[161] (S)-4-((1-(8-(4-(5-(tert-butyl)-1,2,4-oxadiazol-3-yl)phenyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[162] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-((tetrahydro-2H-pyran-4-yl)oxy)pyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[163] (S)-4-((1-(4-chloro-8-(6-(cyclopropylmethoxy)pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[164] (S)-4-((1-(8-(6-(benzyloxy)pyridin-3-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[165] (S)-4-((1-(4-chloro-8-(4-(methylsulfonyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[166] (S)-4-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)benzoic acid

[167] (S)-4-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-N-methylbenzamide

[168] (S)-4-((1-(4-chloro-8-(2-cyclopropylpyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[169] (S)-4-((1-(4-chloro-8-(3,5-dimethoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[170] (S)-4-((1-(4-chloro-8-(5,6-dimethoxypyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[171] (S)-4-((1-(4-chloro-8-(2-methoxypyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[172] (S)-4-((1-(8-(6-aminopyridin-3-yl)-4-chloro-1-oxo-2-

phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[173] (S)-4-((1-(4-chloro-8-(3-morpholinophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[174] (S)-4-((1-(4-chloro-8-(2-morpholinopyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[175] (S)-4-((1-(4-chloro-8-(6-morpholinopyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[176] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(tetrahydro-2H-pyran-4-yl) phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[177] (S)-4-((1-(4-chloro-8-(3,5-dimethoxy-4-methylphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[178] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(trimethylsilyl) phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[179] (S)-4-((1-(4-chloro-8-(4-(4-methylpiperazin-1-yl) phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[180] (S)-4-((1-(4-chloro-8-(2-isopropoxy)pyridin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[181] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-(trifluoromethyl)pyridin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[182] (S)-4-((1-(4-chloro-8-(2-isopropoxy)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[183] (S)-4-((1-(4-chloro-8-(6-ethoxy)pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[184] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(2,2,2-trifluoroethoxy)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[185] (S)-4-((1-(4-chloro-1-oxo-8-(6-phenoxy)pyridin-3-yl)-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[186] (S)-4-((1-(4-chloro-8-(5-fluoro-6-methoxy)pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[187] (S)-4-((1-(4-chloro-8-(5-chloro-6-methoxypyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[188] (S)-4-((1-(4-chloro-8-(2-ethoxypyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[189] (S)-4-((1-(4-chloro-8-(2,4-dimethoxypyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[190] (S)-4-((1-(4-chloro-8-(2-morpholinopyridin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[191] (S)-4-((1-(4-chloro-8-(3-fluoro-4-methoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[192] (S)-4-((1-(4-chloro-8-(8-fluoro-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[193] (S)-4-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-N-isopropylbenzamide

[194] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-(piperidin-1-

yl)pyridin-3-yl)-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[195] (S)-4-((1-(4-chloro-8-(2-fluoropyridin-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[196] (S)-5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-N-methylpicolinamide

[197] (S)-4-((1-(4-chloro-8-(6-methoxy-5-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[198] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrazin-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[199] (S)-4-((1-(4-chloro-8-(3-ethoxy-2-fluoro-4-methoxyphenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[200] (S)-4-((1-(8-(2-(azetidin-1-yl)pyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[201] (S)-5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-

dihydroisoquinolin-8-yl)picolinamide

[202] (S)-N-(5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)pyridin-2-yl)acetamide

[203] (S)-4-((1-(4-chloro-8-(2-(cyclopropylamino)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[204] (S)-4-((1-(4-chloro-8-(6-methoxypyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[205] (S)-4-((1-(4-chloro-8-(5-(dimethylamino)pyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[206] (S)-4-((1-(8-(5-(tert-butoxy)pyrazin-2-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[207] (S)-4-((1-(4-chloro-8-(5-morpholinopyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[208] (S)-4-((1-(8-(2-(tert-butyl)pyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[209] (S)-4-((1-(4-chloro-8-(4-(isopropylsulfonyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[210] (S)-4-((1-(4-chloro-8-(6-morpholinopyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[211] (S)-4-((1-(4-chloro-8-(5-(4-methylpiperazin-1-yl)pyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[212] (S)-4-((1-(8-(2-amino-4-methylpyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[213] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(quinolin-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[214] (S)-4-((1-(4-chloro-8-(2-(methylthio)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[215] (S)-4-((1-(4-chloro-8-(4-isopropylpyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[216] (S)-4-((1-(4-chloro-8-(2-(4-methylpiperazin-1-

yl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[217] (S)-4-((1-(4-chloro-8-(2-(diethylamino)pyrimidin-5-
yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[218] (S)-4-((1-(4-chloro-8-(5-(methylsulfonyl)pyridin-3-
yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[219] (S)-4-((1-(4-chloro-8-(6-(methylsulfonyl)pyridin-3-
yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[220] (S)-4-((1-(4-chloro-8-(2-(isopropylamino)pyrimidin-5-
yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[221] (S)-4-((1-(4-chloro-8-(5-methoxypyrazin-2-yl)-1-oxo-
2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-
d]pyrimidin-5(8H)-one

[222] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(pyrrolidin-
1-yl)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[223] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(6-
(trifluoromethoxy)pyridin-3-yl)-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[224] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(piperidin-1-yl)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[225] (S)-N-(5-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-2-methoxypyridin-3-yl)methanesulfonamide

[226] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrazol-3-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[227] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrazol-4-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[228] (S)-4-((1-(4-chloro-8-(2-(ethylamino)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[229] (S)-5-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-2-methoxynicotinonitrile

[230] (S)-4-((1-(4-chloro-8-(5-ethoxypyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-

d]pyrimidin-5(8H)-one

[231] (S)-4-((1-(4-chloro-8-(2-fluoro-4-(morpholinomethyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[232] (S)-N-(5-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-2-methoxypyridin-3-yl)-2,4-difluorobenzenesulfonamide

[233] (S)-4-((1-(8-(benzo[c][1,2,5]thiadiazol-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[234] (S)-4-((1-(4-chloro-8-(5-methyl-1H-pyrazol-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[235] (S)-4-((1-(8-([1,2,5]oxadiazolo[3,4-b]pyridin-6-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[236] (S)-4-((1-(4-chloro-8-(1H-indazol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[237] (S)-4-((1-(4-chloro-8-(1-methyl-1H-indazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-

d]pyrimidin-5(8H)-one

[238] (S)-4-((1-(4-chloro-8-(isoxazol-4-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[239] (S)-4-((1-(4-chloro-8-(1H-indazol-7-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[240] (S)-4-((1-(8-(benzo[c][1,2,5]oxadiazol-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[241] (S)-4-((1-(8-(benzo[d]oxazol-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[242] (S)-4-((1-(4-chloro-8-(4-methylthiophen-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[243] (S)-4-((1-(4-chloro-8-(3-methylthiophen-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[244] (S)-4-((1-(4-chloro-8-(4-methyl-1H-pyrazol-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[245] (S)-4-((1-(4-chloro-8-(morpholinomethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[246] (S)-4-((1-(4-chloro-8-(6-(methylamino)pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[247] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(trifluoromethoxy)phenyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[248] (S)-4-((1-(4-chloro-8-(2,6-dimethylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[249] (S)-4-((1-(4-chloro-8-(dimethylamino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[250] (S)-4-((1-(4-chloro-8-(4-methylpiperazin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[251] (S)-4-((1-(4-chloro-8-morpholino-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[252] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrrolidin-

1-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[253] (S)-4-((1-(4-chloro-8-(2,3-dihydrobenzo[b][1,4]dioxin-6-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[254] (S)-4-((1-(8-([1,1'-biphenyl]-4-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[255] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(p-tolyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[256] (S)-4-((1-(4-chloro-8-(2-chloro-4-(trifluoromethyl)phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[257] (S)-4-((1-(4-chloro-8-(6-methylpyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[258] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrrol-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[259] (S)-4-(4-chloro-1-oxo-3-(1-(5-oxo-5,8-

dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-dihydroisoquinolin-8-yl) benzonitrile

[260] (S)-4-((1-(8-(4-morpholinophenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[261] (S)-4-((1-(1-oxo-2-phenyl-8-(4-(pyrrolidin-1-yl) phenyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[262] (S)-4-((1-(8-(4-(hydroxymethyl) phenyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[263] (S)-4-((1-(8-(3-methyl-1H-indol-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[264] (S)-4-((1-(8-(6-(dimethylamino) pyridin-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[265] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-dihydroisoquinoline-8-carbonitrile

[266] (S)-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-dihydroisoquinoline-

8-carbonitrile

[267] (S)-4-((1-(8-acetyl-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[268] (S)-4-((1-(8-butyryl-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[269] (S)-4-((1-(4-chloro-8-(cyclopropanecarbonyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[270] (S,Z)-4-((1-(4-chloro-8-(1-(methoxyimino)ethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[271] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carbaldehyde

[272] 4-(((1S)-1-(4-chloro-8-(1,2-dihydroxy-2-phenylethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[273] (S,Z)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carbaldehyde oxime

[274] (S)-4-chloro-N-methyl-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[275] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-N-propyl-1,2-dihydroisoquinoline-8-carboxamide

[276] (S)-4-chloro-N-(oxetan-3-yl)-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[277] (S)-4-chloro-N-cyclobutyl-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[278] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-N-(thiophen-2-ylmethyl)-1,2-dihydroisoquinoline-8-carboxamide

[279] (S)-4-chloro-N-(furan-2-ylmethyl)-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[280] (S)-N-benzyl-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[281] (S)-4-chloro-N-(2-morpholinoethyl)-1-oxo-3-(1-

((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[282] (S)-4-chloro-N-isopropyl-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[283] (S)-4-chloro-N-(cyclopropylmethyl)-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[284] (S)-4-chloro-N-(1-hydroxy-2-methylpropan-2-yl)-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[285] (S)-N-(tert-butyl)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[286] (S)-4-((1-(4-chloro-8-(morpholine-4-carbonyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[287] (S)-4-((1-(4-chloro-8-(1H-imidazol-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[288] (S)-4-((1-(4-chloro-8-(4,5-dimethyl-1H-imidazol-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[289] (S)-4-((1-(4-chloro-8-(4,4-dimethyl-4,5-dihydrooxazol-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[290] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxylic acid

[291] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxamide

[292] Ethyl (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboxylate

[293] (S)-4-((1-(4-chloro-8-(4,6-diamino-1,3,5-triazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[294] (S)-4-((1-(8-amino-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[295] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)pivalamide

[296] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)acetamide

[297] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)pentanamide

[298] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)cyclobutanecarboxamide

[299] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)benzamide

[300] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)methanesulfonamide

[301] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)cyclopropanesulfonamide

[302] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-2,2,2-trifluoroethane-1-sulfonamide

[303] (S)-N-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-

dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-dihydroisoquinolin-8-yl) -4-fluorobenzenesulfonamide

[304] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(thiophen-2-ylethynyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[305] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(phenylethynyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[306] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-ylethynyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[307] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-3-ylethynyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[308] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylethynyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[309] (S)-4-((1-(4-chloro-8-((1-methyl-1H-pyrazol-4-yl) ethynyl) -1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[310] (S)-4-((1-(8-([1,1'-biphenyl]-4-ylethynyl) -4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[311] (S)-4-((1-(4-chloro-8-((1-methyl-1H-pyrazol-5-yl)ethynyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[312] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(thiazol-2-ylethynyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[313] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(thiazol-5-ylethynyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[314] (S)-4-((1-(4-chloro-8-((4-(dimethylamino)phenyl)ethynyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)-5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-5(8H)-one

[315] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-((4-(trifluoromethyl)phenyl)ethynyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)-5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-8-ium 2,2,2-trifluoroacetate

[316] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidin-5-ylethynyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[317] (S)-4-((1-(8-(benzo[d]oxazol-2-yl)-4-chloro-1-

oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[318] (S)-4-((1-(8-(benzo[d]oxazol-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[319] (S)-4-((1-(8-(benzyl(methyl)amino)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[320] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-pyrazol-1-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[321] (S)-4-((1-(8-(benzylamino)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[322] (S)-4-((1-(4-chloro-8-(cyclohexyl(methyl)amino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[323] (S)-4-((1-(4-chloro-8-(cyclopropylamino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[324] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-((pyridin-3-ylmethyl)amino)-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[325] (S)-4-((1-(4-chloro-8-(ethylamino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[326] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-phenylpiperazin-1-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[327] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-((1S,5R)-1,3,3-trimethyl-6-azabicyclo[3.2.1]octan-6-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[328] 4'-chloro-3'-((S)-1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2'-phenyl-3,4,4a,5,6,7,8,8a-octahydro-1H-[2,8'-biisoquinolin]-1'(2'H)-one

[329] (S)-4'-chloro-7-methyl-3'-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2'-phenyl-3,4-dihydro-1H-[2,8'-biisoquinolin]-1'(2'H)-one

[330] (S)-4-((1-(4-chloro-8-(4,7-dihydrothieno[2,3-c]pyridin-6(5H)-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[331] 4-(((1S)-1-(4-chloro-1-oxo-2-phenyl-8-((tetrahydrofuran-3-yl)amino)-1,2-dihydroisoquinolin-3-

yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[332] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-
(tetrahydro-2H-pyran-4-yl)amino)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[333] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-(pyridin-
2-yl)piperazin-1-yl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[334] (S)-4-((1-(4-chloro-8-(methyl(naphthalen-2-
ylmethyl)amino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[335] (S)-4-((1-(4-chloro-8-((4-chlorophenethyl)amino)-
1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[336] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(4-
phenylpiperidin-1-yl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[337] (S)-1-(4-chloro-1-oxo-3-((S)-1-((5-oxo-5,8-
dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-
dihydroisoquinolin-8-yl)pyrrolidine-2-carboxamide

[338] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-((S)-2-
(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl)-1,2-dihydroisoquinolin-
3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[339] 4-((1S)-1-(4-chloro-8-(2-hydroxypyrrolidin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[340] (S)-4-((1-(4-chloro-8-(isoindolin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[341] (S)-4-((1-(4-chloro-8-(indolin-1-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[342] 4-((1S)-1-(4-chloro-8-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[343] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(phenylamino)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[344] (S)-4-((1-(4-chloro-8-((4-fluorophenyl)amino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[345] (S)-4-((1-(4-chloro-8-((4-methoxyphenyl)amino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

- [346] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-((4-(trifluoromethyl)phenyl)amino)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [347] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-3-ylamino)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [348] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylamino)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [349] (S)-4-((1-(4-chloro-8-(methyl(pyridin-2-yl)amino)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [350] (S,Z)-4-chloro-N'-hydroxy-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinoline-8-carboximidamide
- [351] (S)-4-((1-(4-chloro-8-(1,2,4-oxadiazol-3-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [352] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(1H-tetrazol-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one
- [353] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-

dihydropyrido[2,3-d]pyrimidin-4-yl) amino) ethyl) -2-phenyl-1,2-dihydroisoquinolin-8-yl) boronic acid

[354] (S)-4-((1-(4-chloro-8-ethyl-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[355] (S)-4-((1-(4-chloro-8-(hydroxymethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[356] 4-((1S)-1-(4-chloro-1-oxo-2-phenyl-8-(thiazolidin-2-yl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[357] 4-((1S)-1-(4-chloro-8-(1-hydroxy-2,2-dimethylpropyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[358] (S)-4-((1-(4-chloro-8-(5,5-dimethyl-1,3-dioxan-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[359] (S)-4-((1-(4-chloro-8-(3-hydroxy-2,2-dimethylpropoxy)methyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[360] (S)-4-((1-(4-chloro-8-(2-hydroxypropan-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-

d]pyrimidin-5(8H)-one

[361] 4-((S)-1-(4-chloro-8-((R)-1-hydroxyethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 441)

[362] (S)-4-((1-(8-(benzyloxy)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[363] (S)-4-((1-(4-chloro-8-(2-methoxyethoxy)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[364] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2,2,2-trifluoroethoxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[365] (S)-4-((1-(4-chloro-8-methoxy-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[366] (S)-4-((1-(4-chloro-8-(2-methoxyphenoxy)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[367] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(p-tolyloxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-

d]pyrimidin-5(8H)-one

[368] 4-((1S)-1-(4-chloro-1-oxo-2-phenyl-8-(1-(pyridin-4-yl)ethoxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[369] (S)-4-((1-(4-chloro-8-((4-chlorobenzyl)thio)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[370] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-ylthio)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[371] (S)-4-((1-(4-chloro-8-((4-chlorophenyl)thio)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[372] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(propylthio)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[373] (S)-6-(4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-1,2-dihydroisoquinolin-8-yl)-2,2-dimethyl-2H-benzo[b][1,4]oxazin-3(4H)-one

[374] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)-8-(2-methoxypyridin-4-

yl)pyrido[2,3-d]pyrimidin-5(8H)-one

[375] (S)-8-(5-bromo-2-methoxypyridin-4-yl)-4-((1-(4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[376] (S)-4-((1-(4-chloro-8-(5-isopropoxypyrazin-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[377] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(thiophen-2-yl)pyrimidin-5-yl))-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[378] (S)-4-((1-(4-chloro-8-(2-(furan-2-yl)pyrimidin-5-yl))-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[379] (S)-4-((1-(4-chloro-8-(2-ethylpyrimidin-5-yl))-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[380] (S)-4-((1-(4-chloro-8-(1H-indol-2-yl))-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[381] (S)-4-((1-(4-chloro-8-(2-isopropylpyrimidin-5-yl))-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[382] (S)-4-((1-(4-chloro-8-(2-fluoropyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[383] (S)-4-((1-(8-(2-methoxypyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[384] (S)-4-((1-(8-(2-ethoxypyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[385] (S)-4-((1-(1-oxo-2-phenyl-8-(2-(trifluoromethyl)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[386] (S)-4-((1-(8-(2-(2-hydroxypropan-2-yl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[387] (S)-4-((1-(4-chloro-8-(5-methylthiophen-2-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[388] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(thiophen-2-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[389] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-

(trifluoromethyl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[390] (S)-4-((1-(4-chloro-8-(methylsulfonyl)-1-oxo-2-
phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-
d]pyrimidin-5(8H)-one

[391] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-
ylsulfonyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-
d]pyrimidin-5(8H)-one

[392] (S)-4-((1-(4-chloro-8-(2-
(methylsulfonyl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-
dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-
5(8H)-one

[393] (S)-4-((1-(4-chloro-8-((4-chlorophenyl)sulfonyl)-
1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[394] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-(((S)-4-
(trifluoromethoxy)phenyl)sulfinyl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a
diastereomeric relationship with compound no. 395)

[395] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-(((R)-4-
(trifluoromethoxy)phenyl)sulfinyl)-1,2-dihydroisoquinolin-3-
yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a

diastereomeric relationship with compound no. 394)

[396] 4-((S)-1-(4-chloro-1-oxo-2-phenyl-8-((S)-propylsulfinyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 397)

[397] 4-((S)-1-(4-chloro-1-oxo-2-phenyl-8-((R)-propylsulfonyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 396)

[398] (S)-4-((1-(4-chloro-8-((4-fluorophenyl)thio)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[399] (S)-4-((1-(4-chloro-8-((4-fluorophenyl)sulfonyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[400] (S)-4-((1-(8-((1H-1,2,4-triazol-3-yl)thio)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[401] (S)-4-((1-(8-((1H-1,2,4-triazol-3-yl)sulfonyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[402] (S)-4-((1-(4-chloro-8-(2-chloropyrimidin-5-yl)-1-

oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[403] (S)-4-((1-(8-(2-acetylpyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[404] (S)-4-((1-(4-chloro-8-(2-(2-ethoxypropan-2-yl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[405] (S)-4-((1-(4-chloro-8-(2-(2-methoxypropan-2-yl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[406] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(2-(2-propoxypropan-2-yl)pyrimidin-5-yl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[407] 4-(((1S)-1-(4-chloro-8-(2-(S-methylsulfonimidoyl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[408] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-((R)-propylsulfonimidoyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 409)

[409] 4-((S)-1-(4-chloro-1-oxo-2-phenyl-8-((S)-propylsulfonimidoyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 408)

[410] 4-((S)-1-(4-chloro-1-oxo-2-phenyl-8-((R)-propan-2-ylsulfonimidoyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 411)

[411] 4-((S)-1-(4-chloro-1-oxo-2-phenyl-8-((S)-propan-2-ylsulfonimidoyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 410)

[412] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylthio)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[413] 4-((1S)-1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylsulfinyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[414] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylsulfonyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[415] (S)-4-((1-(4-chloro-8-(isopropylthio)-1-oxo-2-

phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[416] (S)-4-((1-(4-chloro-8-(isopropylsulfonyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[417] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(thiazol-2-ylthio)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[418] (S)-4-((1-(4-chloro-8-(oxetan-3-ylthio)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[419] 4-(((1S)-1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidin-2-ylsulfinyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[420] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidin-2-ylsulfonyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one

[421] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-((S)-pyrimidin-2-sulfonimidoyl)-1,2-dihydroisoquinolin-3-yl) ethyl) amino) pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 422)

[422] 4-(((S)-1-(4-chloro-1-oxo-2-phenyl-8-((R)-

pyrimidine-2-sulfonimidoyl)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 421)

[423] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyrimidine-2-ylthio)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[424] (S)-4-((1-(8-(2-(tert-butoxy)pyrimidin-5-yl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[425] 4-(((1S)-1-(4-chloro-8-(S-methylsulfonimidoyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[426] (S)-4-((1-(8-(tert-butylthio)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[427] (S)-4-((1-(4-chloro-8-mercapto-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[428] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-yloxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[429] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-4-

ylmethoxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[430] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-2-ylmethoxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[431] 4-(((1S)-1-(4-chloro-8-(oxetan-3-ylsulfinyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[432] (S)-4-((1-(4-chloro-8-(oxetan-3-ylsulfonyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[433] (S)-4-((1-(8-(tert-butylsulfonyl)-4-chloro-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[434] (S)-4-((1-(4-chloro-8-(ethylthio)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[435] 4-(((S)-1-(4-chloro-8-((R)-ethylsulfonimidoyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 436)

[436] 4-(((S)-1-(4-chloro-8-((S)-ethylsulfonimidoyl)-1-

oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 435)

[437] (S)-4-((1-(4-chloro-1-oxo-2-phenyl-8-(pyridin-3-yloxy)-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[438] (S)-4-((1-(4-chloro-8-(2-(1-hydroxycyclobutyl)pyrimidin-5-yl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one

[439] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-2-phenyl-N-(pyridin-4-ylmethyl)-1,2-dihydroisoquinoline-8-carboxamide

[440] (S)-4-chloro-1-oxo-3-(1-((5-oxo-5,8-dihydropyrido[2,3-d]pyrimidin-4-yl)amino)ethyl)-N,2-diphenyl-1,2-dihydroisoquinoline-8-carboxamide

[441] 4-(((S)-1-(4-chloro-8-((S)-1-hydroxyethyl)-1-oxo-2-phenyl-1,2-dihydroisoquinolin-3-yl)ethyl)amino)pyrido[2,3-d]pyrimidin-5(8H)-one (having a diastereomeric relationship with compound no. 361)

【Claim 11】

A pharmaceutical composition comprising, the pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to any one of claims 1 to 10, as an effective ingredient.

【Claim 12】

The pharmaceutical composition according to claim 11, wherein the pharmaceutical composition is for preventing or treating PI3 kinase-associated diseases.

【Claim 13】

The pharmaceutical composition according to claim 11, wherein the pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof inhibit at least one kinase of PI3K- δ and DNA-PK.

【Claim 14】 The pharmaceutical composition according to claim 12, wherein the PI3 kinase-associated disease is at least one selected from the group consisting of cancer diseases comprising hematologic malignancy, ovarian cancer, cervical cancer, breast cancer, colorectal cancer, liver cancer, stomach cancer, pancreatic cancer, colon cancer, peritoneal metastatic cancer,

skin cancer, bladder cancer, prostate cancer, lung cancer, osteosarcoma, fibrous tumor or brain tumor; autoimmune diseases comprising rheumatoid arthritis, systemic lupus erythematosus, multiple sclerosis, diabetes, hyperthyroidism, myasthenia or autoimmune pernicious anemia; and respiratory diseases comprising chronic obstructive pulmonary disease (COPD), rhinitis, asthma, chronic bronchitis, chronic pulmonary inflammatory disease, pleurisy, alveolitis, vasculitis, emphysema, pneumonia or bronchiectasis.

【Claim 15】

A method for preventing or treating PI3 kinase-associated diseases, the method comprising administering a therapeutically effective amount of the pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to any one of claims 1 to 10, into a subject.

【Claim 16】

Use of the pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to any one of claims 1 to 10, for

preventing or treating PI3 kinase-associated diseases.

【Claim 17】

Use of the pyrido-pyrimidine derivative, isomers thereof or pharmaceutically acceptable salts thereof, solvates thereof or hydrates thereof according to any one of claims 1 to 10, in the manufacture of a medicament for treating PI3 kinase-associated diseases.