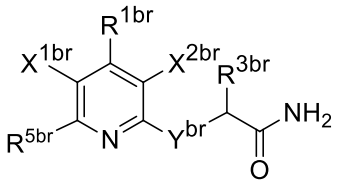
CLAIMS

1. A compound of Formula (Ibr):



(Ibr)

wherein:

X^{1br} and X^{2br} are independently selected from:

hydrogen,
-CN,
fluoro,
chloro,
bromo,
iodo,
C_{1-6}alkyl,
R^e,
-OC_{1-6}alkyl,
-OR^e,
cycloalkyl,
cycloalkyl substituted from 1 to 4 times by R^d,
heterocycloalkyl,
heterocycloalkyl substituted from 1 to 4 times by R^d,
-SH, and
-SR^a;

Y^{br} is selected from: S, NH, NR^z, O, S(O), and $S(O)_2$;

R^{1br} is selected from:

-NH_2,
-NHR^a,
-NR^bR^c,
-CN,
fluoro,
chloro,
bromo,
iodo,
C_{1-6}alkyl,

R^e,
$-OC_{1-6}$alkyl,
$-OR^e$,
cycloalkyl,
cycloalkyl substituted from 1 to 4 times by R^d,
heterocycloalkyl,
heterocycloalkyl substituted from 1 to 4 times by R^d,
aryl,
aryl substituted from 1 to 4 times by R^d,
heteroaryl,
heteroaryl substituted from 1 to 4 times by R^d,
-SH, and
$-SR^a$;

R^{3br} is selected from:

hydrogen,
C_{1-6}alkyl,
R^e,
heterocycloalkyl,
heterocycloalkyl substituted from 1 to 4 times by R^d,
aryl,
aryl substituted from 1 to 4 times by R^d,
heteroaryl, and
heteroaryl substituted from 1 to 4 times by R^d; and

R^{5br} is selected from:

$-NH_2$,
$-NHR^a$,
$-NR^bR^c$,
aryl,
aryl substituted from 1 to 4 times by R^d,
$-C_{1-6}$alkyl,
$-OC_{1-6}$alkyl,
$-OR^e$,
-Oaryl,
-Oaryl substituted from 1 to 4 times by R^d,
-Oheteroaryl,
-Oheteroaryl substituted from 1 to 4 times by R^d,
-SH, and

-SR^a;

where:

each R^a is independently selected from

C_{1-6}alkyl,

R^e,

aryl,

aryl substituted from 1 to 4 times by R^d,

heteroaryl,

heteroaryl substituted from 1 to 4 times by R^d

cycloalkyl,

cycloalkyl substituted from 1 to 4 times by R^d,

heterocycloalkyl, and

heterocycloalkyl substituted from 1 to 4 times by R^d;

R^b and R^c are independently selected from:

C_{1-6}alkyl,

R^e,

aryl,

aryl substituted from 1 to 4 times by R^d,

heteroaryl,

heteroaryl substituted from 1 to 4 times by R^d;

cycloalkyl,

cycloalkyl substituted from 1 to 4 times by R^d,

heterocycloalkyl, and

heterocycloalkyl substituted from 1 to 4 times by R^d, or

R^b and R^c are taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently selected from O, N, and S,, to form a heterocycloalkyl, which is optionally substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

bromo,

iodo,

C_{1-6}alkyl,

R^e,

-OR^e,

aryl,

aryl substituted from 1 to 4 times by R^d,

cycloalkyl,

cycloalkyl substituted from 1 to 4 times by R^d,
heterocycloalkyl, and
heterocycloalkyl substituted from 1 to 4 times by R^d,
C_{1-4}alkoxy,
–-CN,
oxo,
-OH,
-COOH,
$-NO_2$,
$-NH_2$,
$-N(H)C_{1-5}$alkyl,
$-N(H)R^e$,
$-N(C_{1-5}alkyl)_2$,
$-NR^eR^e$,
$-N(R^e)C_{1-5}$alkyl,
$-ONHC(NH)NH_2$,
-Oheterocycloalkyl,
-NHcycloalkyl,
$-N(C_{1-5}$alkyl)cycloalkyl,
-NHheterocycloalkyl,
$-N(C_{1-5}$alkyl)heterocycloalkyl,
$-S(O)_2C_{1-4}$alkyl,
$-SO_2NH_2$
$-S(O)_2$phenyl,
benzoyl,
2-methylcyclopropyl,
imidazolyl,
(methoxypyridinylmethyl)amino,
(methylcyclopropylmethyl)amino,
(fluorophenylmethyl)amino,
(methyloxetanylmethyl)amino, and
(methylcyclobutylmethyl)amino;

each R^d is independently selected from:

fluoro,
chloro,
bromo,
iodo,
C_{1-6}alkyl,

R^e,

heteroaryl,

heteroaryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

cycloalkyl,

cycloalkyl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

heterocycloalkyl,

heterocycloalkyl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

aryl,

aryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

C_{1-4}alkoxy,

C_{1-4}alkoxy substituted from 1 to 4 times by fluoro,

-Oaryl,

-Oaryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

$-OR^e$,

-C(O)H,

$-C(O)R^{zz}$,

-C(O)aryl,

-C(O)aryl substituted from 1 to 4 times by R^{zz},

-C(O)heteroaryl,

-C(O)heteroaryl substituted from 1 to 4 times by R^{zz},

-OC(O)H,

-CO(O)R^{zz},

-OC(O)aryl,

-CO(O)aryl substituted from 1 to 4 times by R^{zz},

-OC(O)heteroaryl,

-OC(O)heteroaryl substituted from 1 to 4 times by R^{zz},

-SH,

-SR^{x},

where R^{x} is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-S(O)H,

-$S(O)R^{x}$,

where R^{x} is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-$S(O)_2H$,

-$S(O)_2R^{x}$,

where R^{x} is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-$S(O)_2NH_2$,

-$S(O)_2NHR^{x}$,

where R^{x} is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-$S(O)_2NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-$P(O)(CH_3)_2$,

-$NHS(O)_2H$,

-$NHS(O)_2R^{x}$,

where R^{x} is selected from aryl, heteroaryl, cycloalkyl,

heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-NHC(O)H,

$-NHC(O)R^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

$-C(O)NH_2$,

$-C(O)NHR^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

$-C(O)NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and —-CN,

-C(O)OH,

$-C(O)OR^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

oxo,

-OH,

$-NH_2$,

$-NHR^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

$-NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH,

-NH_2, and -CN,

-NH_2,

-CN,

-NHC(O)NH_2,

-NHC(O)NHR^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –CN,

-NHC(O)$NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and -CN,

each R^e is independently selected from:

C_{1-6}alkyl substituted with from 1 to 9 substitutents independently selected from:

fluoro,

chloro,

bromo,

iodo,

-OC_{1-6}alkyl,

-OC_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and -CN,

-OC(O)C_{1-6}alkyl,

-OC(O)C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and -CN,

-ONHC(NH)NH_2,

-OP(O)$(OH)_2$,

-SH,

-SR^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –CN,

-S(O)H,

$-S(O)R^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

$-S(O)_2H$,

$-S(O)_2R^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and –CN,

oxo,

-OH,

$-NH_2$,

$-NHR^{xx}$,

where R^{xx} is selected from aryl, heteroaryl, cycloalkyl, cycloalkyl substituted with C_{1-4}alkoxy, C_{1-4}alkoxy substituted with from 1 to 6 substituents independently selected from: fluoro, triazolyl, cyclopropyl,oxo, $-OR^{xy}$, -COOH, –CN, and $-NR^{xy}R^{xz}$, where R^{xy} and R^{xz} are Independently selected from: hydrogen, aryl, C_{1-5}alkyl heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, $-OR^{xy}$, -COOH, –CN, and $-NR^{xy}R^{xz}$, where R^{xy} and R^{xz} are Independently selected from: hydrogen, aryl, C_{1-5}alkyl and C_{1-5}alkyl substituted with from 1 to 4 substituents independently selected from: fluoro, triazolyl, cyclopropyl,oxo, -OH, $-OC_{1-5}$alkyl, $-OC_{1-5}$alkyl substituted from 1 to 6 times by fluoro and –COOH,

$-NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-4}alkoxy, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, C_{1-4}alkoxy, triazolyl, cyclopropyl, oxo, -OH, -COOH, $-NH_2$, and -CN,

guanidino,

-C(O)OH,

-C(O)OR^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and –CN,

-C(O)NH_2,

-C(O)NHR^x,

where R^x is selected from aryl, heteroaryl, -OH, C_{1-4}alkoxy, cycloalkyl, cycloalkyl substituted with HO-(C_{1-4}alkyl)-, heterocyloalkyl, heterocyloalkyl substituted with HO-(C_{1-4}alkyl)-, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, heteroaryl, $-NH_2$, and –-CN,

-C(O)$NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, cycloalkyl substituted with HO-(C_{1-4}alkyl)-, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and –CN,

or R^{x1} and R^{x2} taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently selected from O, N, and S, to form a heterocycloalkyl, which is optionally substituted with from 1 to 5 substituents independently selected from fluoro, oxo, -OH, HO-(C_{1-4}alkyl)-, -COOH, $-NH_2$, and –CN,

aryl,

aryl substituted from 1 to 4 times by R^x,

where R^x is selected from fluoro, chloro, bromo, iodo, aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, $-N(CH_3)_2$, -NHC(O)C_{1-4}alkyl, and –CN,

-Oaryl,

-Oaryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, $-N(CH_3)_2$, and -CN,

heteroaryl,

heteroaryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-4}alkoxy, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and –CN,

-Oheteroaryl,

-Oheteroaryl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, $-N(CH_3)_2$, and -CN,

cycloalkyl,

cycloalkyl substituted from 1 to 4 times by R^x,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, $-N(CH_3)_2$, and -CN,

heterocycloalkyl,

heterocycloalkyl substituted from 1 to 4 times by R^x,

where R^x is selected from oxo, -OH, $-N(C_{1-4}alkyl)_2$, aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, $-N(CH_3)_2$, and -CN,

$-S(O)_2NH_2$,

$-S(O)_2NHR^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH,

-COOH, -NH_2, and –-CN,

-$S(O)_2NR^{x1}R^{x2}$,

where R^{x1} and R^{x2} are each independently selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 Substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –CN,

-$NHS(O)_2H$,

-$NHS(O)_2R^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –CN,

-$OC(O)NH_2$,

-$NHC(O)R^x$,

where R^x is selected from aryl, heteroaryl, cycloalkyl, heterocyloalkyl, C_{1-6}alkyl, and C_{1-6}alkyl substituted with from 1 to 6 substituents independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –CN,

-$NHC(O)NHR^{xp}$,

where R^{xp} is selected from heteroaryl, cycloalkyl, heterocyloalkyl, and C_{1-6}alkyl substituted with from 1 to 4 substituents independently selected from: -COOH, -NH_2, and –-CN,

-$NHC(O)NR^{x3}R^{x4}$,

where R^{x3} and R^{x4} are each independently selected from heteroaryl, cycloalkyl, heterocyloalkyl, and C_{1-6}alkyl substituted with from 1 to 6 Substituents independently selected from: -COOH, -NH_2, and –-CN,

-$NHC(O)C(O)NH_2$,

-NO_2, and

-CN; and

R^z is selected from

C_{1-6}alkyl,

R^e,

cycloalkyl,
cycloalkyl substituted from 1 to 4 times by R^d,
heterocycloalkyl, and
heterocycloalkyl substituted from 1 to 4 times by R^d;

R^{zz} is selected from
C_{1-6}alkyl, and
R^e;

provided that:
X^{1br} and X^{2br} are not both hydrogen;

or a pharmaceutically acceptable salt or prodrug thereof.

2. A compound according to claim 1 for use in the treatment of a disease selected from: cancer, pre-cancerous syndromes, beta haemoglobinopathy disorders, sickle cell disease, sickle cell anemia, and beta thalassemia.

3. A compound of claim 1 wherein the compound is selected from:

2-[(6-amino-3,5-dicyano-4-ethylpyridin-2-yl)sulfanyl]-2-phenylacetamide;

(R)-[(6-amino-3,5-dicyano-4-ethylpyridin-2-yl)sulfanyl]-2-phenylacetamide;

2-{[3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-{[3,5-dicyano-4-cyclopropyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-propyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-morpholinopyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-methyl-3-oxopiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-(pyridin-4-yl)acetamide;

2-[(3,5-dicyano-4-ethyl-6-{methyl[2-(morpholin-4-yl)ethyl]amino}pyridin-2-yl)sulfanyl]-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-propylpiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-dicyano-4-ethyl-6-[4-(piperidin-4-yl)piperazin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-({3,5-dicyano-4-cyclopropyl-6-[3-(hydroxymethyl)piperazin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-{[3,5-dicyano-4-cyclopropyl-6-(3-oxopiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-dicyano-4-cyclopropyl-6-[4-(morpholin-4-yl)piperidin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-methylpiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2-(hydroxymethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2,6-dimethylmorpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-aminopiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(dimethylamino)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(4-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-cyclopropyl-6-((R)-3-hydroxypiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-cyclopropyl-6-((S)-3-hydroxypiperidin-1-yl)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-ethylpiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(1-oxa-6-azaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(3-aminopropyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(1,7-diazaspiro[3.5]nonan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(pyrrolidin-1-ylmethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(4-methylpiperazin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-6-(1,4-diazepan-1-yl)-4-ethylpyridin-2-yl)amino)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,7-diazaspiro[3.5]nonan-7-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,6-diazaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)propanamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-oxoimidazolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-hydroxypiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-oxopiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-[(6-amino-3,5-dicyano-4-cyclopropyl-2-pyridyl)sulfanyl]-2-phenyl-acetamide;

2-((3,5-Dicyano-4-ethyl-6-(methylamino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((2-methoxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-methoxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-morpholinopyridin-2-yl)thio)-2-phenylacetamide;

2-[[6-(azetidin-1-yl)-3,5-dicyano-4-ethyl-2-pyridyl]sulfanyl]-2-phenyl-acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-oxopiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(1'-(2-hydroxyethyl)-[4,4'-bipiperidin]-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-((3S,5R)-3,5-dimethylpiperazin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(8-azabicyclo[3.2.1]octan-3-yl(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2-(hydroxymethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-[(3,5-Dicyano-4-ethyl-6-morpholino-2-pyridyl)sulfanyl]-2-phenyl-acetamide;

2-{[3,5-dicyano-4-ethyl-6-(5-methyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-Dicyano-4-ethyl-6-[4-(2-methoxyethyl)-1,4-diazepan-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxypropyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

Methyl 2-[4-(6-{[carbamoyl(phenyl)methyl]sulfanyl}-3,5-dicyano-4-ethylpyridin-2-yl)-1,4-diazepan-1-yl]acetate;

2-{[3,5-Dicyano-4-cyclopropyl-6-(4-methyl-5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-4-cyclopropyl-6-(5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-4-ethyl-6-(4-methyl-5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-6-(1,4-diazepan-1-yl)-4-ethylpyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-Dicyano-6-[4-(2-hydroxyethyl)-1,4-diazepan-1-yl]-4-(2,2,2-trifluoroethyl)pyridin-2-yl}sulfanyl)-2-phenylacetamide;

(2R)-2-({3,5-Dicyano-4-ethyl-6-[4-(2-hydroxyethyl)-1,4-diazepan-1-yl]pyridin-2-yl}amino)-2-phenylacetamide;

2-({6-[(3S)-3-Aminopyrrolidin-1-yl]-3,5-dicyano-4-cyclopropylpyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,9-diazaspiro[5.5]undecan-9-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(hexahydro-1H-pyrrolo[1,2-a][1,4]diazepin-2(3H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-methyl-2,9-diazaspiro[5.5]undecan-9-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(2-(cyclopropylmethyl)-2,9-diazaspiro[5.5]undecan-9-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(3-(dimethylamino)propyl)piperazin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-3-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-([4,4'-Bipiperidin]-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(2-Aminoethyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(3-Aminopropyl)piperazin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-((4-methylpiperazin-1-yl)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Acetylpiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(dimethylamino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(4-Chlorophenyl)-2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-[(3,5-Dicyano-4-cyclopropyl-6-morpholino-2-pyridyl)sulfanyl]-2-phenyl-acetamide;

2-((6-(4-Benzoylpiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((5S,6S)-6-hydroxy-1-(methylsulfonyl)-1,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4,4-difluoropiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-(furan-2-yl)-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)acetamide;

(2S)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-(4-(3-Aminooxetane-3-carbonyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)tetrahydro-2H-pyran-4-carboxamide;

2-((6-(4-(4-Aminotetrahydro-2H-pyran-4-carbonyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Aminoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-hydroxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-Dicyano-4-ethyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-2-methylpropanamide;

2-((6-(4-(2-Aminoethoxy)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl dihydrogen phosphate;

(2S)-2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl 2-amino-3-methylbutanoate;

2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl dihydrogen phosphate;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl dihydrogen phosphate;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(piperidin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(propylsulfonyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(phenylsulfonyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-oxa-6-azaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl)amino)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-(3-(pyrrolidin-1-yl)propyl)-1,4-diazepan-1-yl)pyridin-2-yl)amino)-2-phenylacetamide;

2-(3,5-Dicyano-4-cyclopropyl-6-(3-hydroxypiperidin-1-yl)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-Dichloro-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(1,1-dioxidothiomorpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(methyl(2-(piperazin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((4-Cyano-3-(1,4-diazepan-1-yl)-6,7-dihydro-5H-cyclopenta[c]pyridin-1-yl)thio)-2-phenylacetamide;

2-((6-(4-(1H-Imidazol-1-yl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyridin-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(2-(dimethylamino)ethoxy)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-3-yl)amino)acetic acid;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxazol-2-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Pyrrol-2-yl) methyl) piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(3,4-dihydro-2,7-naphthyridin-2 (1H)-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-3-yl)acetamide;

2-((6-(4-((1H-Pyrrol-3-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isoxazol-3-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxazol-5-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isoxazol-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

3-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxetane-3-carboxamide;

2-((6-(4-((1H-Pyrazol-4-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Imidazol-5-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(1-hydroxy-2-methylpropan-2-yl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Imidazol-2-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethoxy-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxy-2-methylpropyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(thiazol-5-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isothiazol-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2- (5-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(furan-3-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((2-morpholinoethyl)thio)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-methyl-1,4-diazepan-1-yl)-4-(methylthio)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dichloro-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(hexahydropyrrolo[3,4-b][1,4]oxazin-6(2H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(5-methylpyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(6-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl) thio)-2-(4-methylpyridin-2-yl) acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(2,4-difluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(5-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethoxy-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)propanamide;

2-((3,5-Dicyano-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)-4-propoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-methyl-2,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(3,4-difluorophenyl)acetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidine-4-carboxamide;

2-((3,5-Dicyano-6-((2-(dimethylamino)ethyl)thio)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-((3S,4R)-3,4-dihydroxypyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-fluoropyridin-2-yl) acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(5-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(1-hydroxy-2-methylpropan-2-yl)piperazin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-(trifluoromethyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethoxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-(2-fluoropyridin-3-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-(6-fluoropyridin-3-yl)acetamide;

3-((6-(2-Amino-2-oxo-1-phenylethylthio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)propanamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxetan-3-yloxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-((2,2-difluoroethyl) amino)-4-methylpiperidin-1-yl)-4-ethylpyridin-2-yl) thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

2-((6-(4-Aminopiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(pyrrolo[3,4-c]pyrazol-5(1H,4H,6H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(5-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(5-methylpyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2-fluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-hydroxy-4-(hydroxymethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-oxo-3-oxa-1,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-(hydroxymethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3-Benzoylphenyl)-2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)acetamide;

2-(4-Benzoylphenyl)-2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2-methylpyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-(pyrrolidin-1-yl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-fluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2,5-difluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-6-(4-(2,5-dioxoimidazolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-Amino-1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) piperidine-4-carboxamide;

2-((3,5-Dicyano-6-(4-(2,5-dioxopyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide (isomer 1);

2-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide (Isomer 2) ;

2-((3,5-Dicyano-4-ethyl-6-(2-oxo-1-oxa-3,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-4-hydroxy piperidine-4-carboxamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl carbamate;

2-((3,5-Dicyano-6-(4-(2,4-dioxooxazolidin-3-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

3-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-2-hydroxy-2-methylpropanamide;

2-((3,5-Dicyano-4-ethyl-6-(3-(hydroxymethyl)azetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-ylthio)-2-(thiophen-3-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl) thio)-2-(5-methylpyridin-3-yl) acetamide;

2-((6-(4-(3-Amino-2-oxopyrrolidin-1-yl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl (2S)-2-amino-3-methylbutanoate;

2-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl) (methyl) amino)ethyl (2S)-2-amino-3-methylbutanoate;

2,2'-((3,5-Dicyano-4-ethylpyridine-2,6-diyl)bis(sulfanediyl))bis(2-phenylacetamide) ;

(2S)-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4 –ethyl pyridin-2-yl)azetidin-3-yl)methyl 2-amino-3-methylbutanoate;

2-((6-(3-Aminoazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-methylpyridin-2-yl)thio)-2-phenylacetamide;

N-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-2-hydroxyacetamide;

N-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl)-2-hydroxyacetamide;

2-((3-Cyano-4-ethyl-5-methyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(5-methyl-2,5-diazabicyclo[2.2.1]heptan-2-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-(pyrrolidin-1-yl)ethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide-2-d;

(R)-2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide-2-d;

2-((6-(4-(4-Bromobenzoyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-cyanopiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(S)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-2-yl)acetamide;

2-((3,5-Dichloro-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

tert-Butyl (1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)carbamate;

2-((6-(3-(2-Amino-2-oxoethyl)azetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(2R)-1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl 2-amino-3-methylbutanoate;

2-((3,5-Dicyano-4-ethyl-6-(methyl((5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((4H-1,2,4-Triazol-3-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethoxy-6-methylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4,6-diethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-(4H-1,2,4-Triazol-4-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Pyrazol-3-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(6,7-dihydro-1H-[1,2,3]triazolo[4,5-c]pyridin-5(4H)-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Imidazol-2-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Imidazol-5-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)propanamide;

4-(2-Amino-1-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-oxoethyl)benzamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropyl pyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-((2-Aminoethyl)(methyl)amino)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)-2-methylpropanamide;

4-(2-Amino-1-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-oxoethyl)benzamide;

2-(6-(4-Aminopiperidin-1-yl)-3-cyano-4-ethyl-5-methylpyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-(N-methylsulfamoyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(6-fluoro-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-3,3-difluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

tert-Butyl (1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3,3-difluoropiperidin-4-yl) carbamate;

2-((3,5-Dicyano-4-cyclopropyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-hydroxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidine-3-carboxamide;

2-((6-((3-Aminopropyl) (methyl) amino)-3, 5-dicyano-4-cyclopropylpyridin-2-yl) thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-((2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)(methyl)amino) pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((2-Amino-2-oxoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)ethyl carbamate;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-3-hydroxypropanamide;

(2S)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) piperidin-4-yl)-3-hydroxypropanamide;

2-(4-(2-Amino-2-oxoethyl)phenyl)-2-(3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-ylthio)acetamide;

2-(4-(2-Amino-2-oxoethyl)phenyl)-2-(3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-ylthio)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(4-(N-methylsulfamoyl)phenyl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino-d_6)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-ylthio)-2-(3-(2-(dimethylamino)ethoxy)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-A(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide; (single enantiomer)

(3*S*)-1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) Pyrrolidin-3-yl dihydrogen phosphate;

(3*R*)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(*S*)-1-(6-(((*S*)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(*S*)-1-(6-(((*R*)-2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-ethylpyridin-2-yl) pyrrolidin-3-yl dihydrogen phosphate;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(3-(dimethylphosphoryl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(3-(dimethylphosphoryl)phenyl)acetamide;

(*R*)-2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

(*R*)-2-((3,5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-methoxyphenyl)acetamide;

(*R*)-2-(4-chlorophenyl)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)acetamide;

(*R*)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-fluoro phenyl)acetamide;

(*S*)-1-(6-(((*R*)-2-amino-1-(4-fluorophenyl)-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((3, 5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(4-fluorophenyl) acetamide;

2-((3,5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 6-difluorophenyl) acetamide;

2-((3, 5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 3-difluorophenyl) acetamide;

2-((3, 5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 4-difluorophenyl) acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-2-(hydroxymethyl)pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(pyrrolidin-1-ylmethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclobutylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((3-methyloxetan-3-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(4-methylpiperazin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-2-methylpyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2R,5S)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-2-methylpyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclobutyl(methyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(6-(4-(benzylamino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((6-methoxypyridin-2-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-3-fluoropyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-((R)-2-methylpyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-3-fluoropyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2S,5S)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-((S)-2-methylpyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-2-(hydroxymethyl)pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((1-methylcyclobutyl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((6-methoxypyridin-3-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-(ethylamino)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((4-methylpiperazin-1-yl)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(methylamino)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2R,5R)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((1-methylcyclopropyl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((4-fluorobenzyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-2-(hydroxymethyl)pyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-6-((2-((2S,5R)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-ylthio)-2-phenylacetamide;

2-((6-((2-(azepan-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(piperidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-2-(hydroxymethyl)pyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-(ethyl(methyl)amino)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((2R,5R)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-((S)-3-hydroxypyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

methyl 2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)amino)-2-methylpropanoate;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(neopentylamino)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-(methyl(2-(1-methylcyclopropylamino)ethyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((2S,5S)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((2-methoxyethyl)amino)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxy-2-methylpropyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-(dimethylamino)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-((R)-3-hydroxypyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((2-fluoroethyl)amino)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(3,3-difluoropyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)amino)acetic acid;

2-((6-((3-aminocyclobutyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-(3,5-dicyano-4-ethyl-6-(methyl((R)-tetrahydrofuran-3-yl)amino)pyridin-2-ylthio)-2-phenylacetamide;

(S)-2-(3,5-dicyano-4-ethyl-6-(methyl((R)-tetrahydrofuran-3-yl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-morpholinopiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-3-oxopiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3S,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

rel-2-((6-(trans)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3R,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-((2-methoxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(pyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(3-((dimethylamino)methyl)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3S,4R)-4-amino-3-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-(diethylamino)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((R)-3-(dimethylamino)pyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((S)-3-(dimethylamino)pyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3R,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3S,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-(methylamino)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3R,4R)-4-amino-3-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-aminopyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-(aminomethyl)pyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-6-(4-(cyclopropylamino)-3-fluoropiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((S)-3-aminopyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-((R)-3-aminopyrrolidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

3,5-dicyano-6-((R)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(S)-2-((6-((3S,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

tert-butyl ((3S,4R)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

rel-tert-butyl (cis)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-fluoropiperidin-4-yl)carbamate;

2-((6-((2-((S)-3-aminopyrrolidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((R)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

tert-butyl ((3R,4S)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

rel-tert-butyl (cis)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-fluoropiperidin-4-yl)carbamate;

2-((3,5-dicyano-6-((S)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(S)-2-((6-((3R,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-((2-hydroxy-2-methylpropyl)amino)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

tert-butyl ((3R,4R)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

2-((3,5-dicyano-6-((S)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

rel-2-((6-cis-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(ethyl(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methyl(neopentyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclopropylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2,2-difluoroethyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((R)-2-((neopentylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(2-((dimethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(2-((diethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2-(pyrrolidin-1-ylmethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((R)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2-((methylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(3-((dimethylamino)methyl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-((methylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-2-((neopentylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-((neopentylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((2S)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-methylpropanamide;

2-((6-((S)-3-(aminomethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((R)-2-((diethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((2R)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-methylpropanamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(3-fluoropyridin-2-yl)acetamide;

2-((6-((S)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((3S)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-3-yl)methyl)-2-methylpropanamide;

2-amino-N-(((3S)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-3-yl)methyl)acetamide;

2-amino-N-(((2R)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)acetamide;

2-((6-((R)-3-(aminomethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-((R)-3-((neopentylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-amino-N-(((2S)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)acetamide;

N-(((R)-4-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-hydroxyacetamide;

(S)-2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-hydroxyethyl)-N-methylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((1-(hydroxymethyl)cyclopropyl)methyl)-N-methylacetamide;

2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)acetamide;

(2S)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)-3-hydroxypropanamide;

2-((6-((S)-3-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-3-hydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)-3-hydroxypropanamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxy-2,2-dimethylpropyl)-N-methylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-3-hydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(aminomethyl)-4-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide hydrochloride;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N-(2-aminoethyl)acetamide hydrochloride;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-oxo-2-(pyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(4-hydroxypiperidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-oxo-2-(piperazin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-morpholino-2-oxoethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((S)-3-(aminomethyl)-3-hydroxypyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(guanidinooxy)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl)-2-methylpropanamide;

2-((6-((2-(2-aminoethoxy)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)butanamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-aminoethyl)acetamide;

2-((6-((2-(azetidin-1-yl)-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-(aminomethyl)-3-fluoropyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(guanidinooxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-aminoazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide; (single stereoisomer)

2-((3,5-dicyano-4-ethyl-6-((R)-3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3R,4S)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((S)-3-(aminomethyl)-3-fluoropyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N-(1,3-dihydroxypropan-2-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(oxetan-3-ylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N,N-bis(2-hydroxyethyl)acetamide;

2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)amino)-4-methylpiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(guanidinooxy)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((2-aminoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-2-(hydroxymethyl)morpholino)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((cis)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-3-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3S,4S)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-3-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((3R,4R)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxy-3-(hydroxymethyl)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(2S)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-(4-(2-aminoethoxy)piperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(4-((2-hydroxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(1,3-dihydroxypropan-2-yl)acetamide;

2-((3,5-dicyano-6-((2-((3R,5S)-3,5-dihydroxypiperidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((3S,4S)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)amino)-4-(hydroxymethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-2-(hydroxymethyl)morpholino)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-methoxyacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3R,4R)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxypropyl)-N-methylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((R)-2,3-dihydroxypropyl)acetamide;

2-((6-(4-((2-amino-2-oxoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N,N-bis(2-hydroxyethyl)acetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-hydroxyethyl)acetamide;

2-((6-((3-aminopropyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-(aminomethyl)azetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((1-(hydroxymethyl)cyclopropyl)methyl)acetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(2,4-difluorophenyl)acetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-(hydroxymethyl)oxetan-3-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(3-(guanidinooxy)azetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxypropyl)acetamide;

2-((3,5-dicyano-6-(4-(2,3-dihydroxypropyl)-1,4-diazepan-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-hydroxyacetamide;

3-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)oxetane-3-carboxamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(2-fluorophenyl)acetamide;

2-((3,5-dicyano-6-((S)-3-(cyclopropylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxy-2,2-dimethylpropyl)acetamide;

N-(2-(4H-1,2,4-triazol-4-yl)ethyl)-2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)acetamide;

N1-(2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl)oxalamide;

2-((6-(3-(aminomethyl)-3-fluoroazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((R)-3-hydroxy-3-(hydroxymethyl)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((S)-3-((2,2-difluoroethyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-4-hydroxyisoxazolidin-2-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((3-hydroxypropyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((S)-3-hydroxypyrrolidin-1-yl)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(3-methoxyazetidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(3-methoxyazetidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

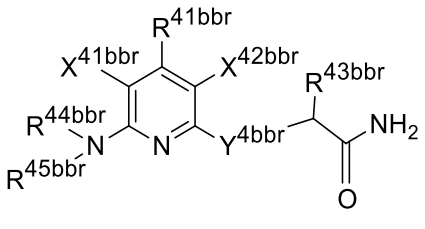
(R)-2-((6-((R)-3-(aminomethyl)-3-hydroxypyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(cyclobutyl(methyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide; and

2-((3,5-dicyano-4-ethyl-6-(methyl(1-methylpyrrolidin-3-yl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

or a pharmaceutically acceptable salt or prodrug thereof, for use in the treatment of a disease selected from: cancer, pre-cancerous syndromes, beta haemoglobinopathy disorders, sickle cell disease, sickle cell anemia, and beta thalassemia.

4. A compound according to Formula (IVbbr):



(IVbbr)

wherein:

X^{41bbr} and X^{42bbr} are independently selected from: --CN, methyl, fluoro, chloro, bromo and iodo;

Y^{4bbr} is selected from: S and NH;

R^{41bbr} is selected from:

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, bromo,

iodo, oxo, C_{1-4}alkyloxy, -OH, -COOH, $-NH_2$
$-N(H)C_{1-4}$alkyl, $-N(C_{1-4}alkyl)_2$ and -CN,
C_{1-4}alkyloxy,
C_{1-4}alkyloxy substituted from 1 to 4 times by fluoro,
$-N(H)C_{1-4}$alkyl,
$-N(C_{1-4}alkyl)_2$,
$-SC_{1-4}$alkyl,
aryl,
aryl substituted with from 1 to 4 substituents
independently selected from:
fluoro,
chloro,
bromo,
iodo,
C_{1-6}alkyl,
C_{1-6}alkyl substituted with from 1 to 9 substituents
independently selected from: fluoro, chloro, bromo,
iodo, oxo, -OH, $-NH_2$ and –CN,
C_{1-4}alkoxy,
–CN,
oxo,
-OH,
$-NO_2$, and
$-NH_2$,
heteroaryl,
heteroaryl substituted with from 1 to 4 substituents
independently selected from:
fluoro,
chloro,
bromo,
iodo,
C_{1-6}alkyl,
C_{1-6}alkyl substituted with from 1 to 9 substituents
independently selected from: fluoro, chloro, bromo,
iodo, oxo, -OH, $-NH_2$ and –CN,
C_{1-4}alkoxy,
–CN,
oxo,
-OH,
$-NO_2$, and

$-NH_2$,

cycloalkyl,

cycloalkyl substituted with from 1 to 4 substituents

independently selected from:

fluoro,

chloro,

bromo,

iodo,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents

independently selected from: fluoro, chloro, bromo, iodo, oxo, -OH, $-NH_2$ and -CN,

C_{1-4}alkoxy,

-CN,

oxo,

-OH,

$-NO_2$, and

$-NH_2$;

R^{43bbr} is selected from:

C_{1-4}alkyl,

phenyl,

phenyl substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, chloro, -C(O)phenyl, pyrrolidinyl, $-P(O)(CH_3)_2$, $-C(O)NH_2$, $-S(O)_2NHCH_3$, $-OCH_2CH_2N(CH_3)_2$ and $–CH_2C(O)NH_2$,

thienyl,

piperidinyl,

pyridine, and

pyridine substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, and $-OCH_3$;

R^{44bbr} and R^{45bbr} are independently selected from:

hydrogen,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents

independently selected from: phenyl, morpholino, triazolyl, imidazolyl, pyrrolidinyl, $-OC(O)NH_2$, $-OCH_2CH_2NH_2$, $-ONHC(NH_2)NH_2$, $-NHCH_2C(CH_3)_3$, $-NOCH_3$, -NHOH, $-NHCH_2CH_2F$, $-N(CH_3)CH_2CH_2OCH_3$, $-N(CH_2CH_3)_2$,

-$NCH(CH_2OH)_2$, -$N(CH_2CH_2OH)_2$, -$NHCH_2CH_2OH$,
-$NHCH_2CH_2NH_2$, -$N(CH_3)C(CH_3)_2CH_2OH$, -$NHCH_2CH_3$,
-$NHCH_2CH_2OCH_3$, -$N(CH_3)CH_2CH_2OH$, -$NHC(O)C(O)NH_2$,
-$N(CH_3)CH_2CH_2CH_2OH$, -$N(CH_3)CH_2CH(OH)CH_2OH$,
-$N(CH_3)CH_2CH_2NH_2$, oxo, -$NHCH_2C(CH_3)_2CH_2OH$, -OH, -NH_2,
-$NHCH_3$, -$NHCH_2CH_2CH_2OH$, -$N(CH_3)_2$, -$N(CH_3)CH_2CH_3$,
-$NHOC(CH_3)_2NH_2$, -$N(CH_3)CH_2$cyclopropyl, -$NHCH_2$cyclopropyl,
-NHoxetanyl, -NCH_2CH_2triazole, piperazinyl, piperidinyl, pyrazolyl,
azepinyl, azetidinyl, methoxy, and cyclopropylamino,

where said phenyl, morpholino, triazolyl, imidazolyl, azepinyl, azetidinyl, pyrrolidinyl, piperazinyl, piperidinyl, oxetanyl, cyclopropyl, and pyrazolyl are optionally substituted with from 1 to 4 substituents independently selected from: methyl, fluoro, -NH_2, -$N(CH_3)_2$, hydroxymethyl, oxo, -OH, and –CH_2NH_2,

cycloalkyl,

cycloalkyl substituted with from one to five substituents

independently selected from:

fluoro,

chloro,

-OH,

C_{1-6}alkyl, and

C_{1-6}alkyl substituted with from 1 to 9 substituents

independently selected from: fluoro and chloro;

heterocycloalkyl, and

heterocycloalkyl substituted with from 1 to 5 substituents independently

selected from:

fluoro,

chloro,

bromo,

iodo,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents

independently selected from: fluoro, chloro, bromo, iodo, oxo, -OH, -NH_2 and –-CN,

aryl,

C_{1-4}alkoxy,

C_{1-4}alkoxy substituted with from 1 to 4 substituents

independently selected from: fluoro, oxo, -OH, -COOH, -NH_2, and –-CN,

-CN,

oxo,

-OH,

-COOH,

$-NO_2$,

$-NH_2$, and

SO_2NH_2, or

R^{44bbr} and R^{45bbr} are taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently selected from O, N, and S, to form a heterocycloalkyl, which is optionally substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

bromo,

iodo,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, heterocycloalkyl, methylheterocycloalkyl-, -OH, $-NH_2$, $-N(H)C_{1-5}$alkyl, aminoheterocycloalkyl-, $-N(C_{1-5}alkyl)_2$, --CN, $-N(C_{1-4}alkyl)(CH_2OCH_3)$, and $-NHC_{1-4}$alkyl substituted by one or two substituents independently selected from oxo, NH_2, and -OH,

aryl,

cycloalkyl,

heterocycloalkyl,

heterocycloalkyl substituted with from 1 to 9 substituents independently selected from: C_{1-6}alkyl, $-C_{1-6}$alkylOH, fluoro, $-C_{1-6}alkylNH_2$, chloro, bromo, iodo, oxo, -OH, $-NH_2$ and –CN,

C_{1-4}alkoxy,

C_{1-4}alkoxy substituted with from 1 to 4 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-CN,

oxo,

-OH,

$-OP(O)(OH)_2$,

-COOH,

-$CONH_2$,
-NO_2,
-NH_2,
-$N(H)C_{1-5}$alkyl,
-$N(H)C_{1-6}$alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, bromo, iodo, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, aminoC_{1-4}alkoxy, heterocycloalkyl, methylheterocycloalkyl-, -OH, $-NH_2$, $-N(H)C_{1-4}$alkyl, $-N(C_{1-4}alkyl)_2$, and -CN,
-Ooxetanyl,
$-ONHC(NH)NH_2$,
-NHcyclopropyl,
-NHoxetanyl,
$-N(C_{1-5}alkyl)_2$,
$-S(O)_2CH_2CH_3$,
$S(O)_2CH_2CH_2CH_3$,
$-S(O)_2CH_3$,
$-SO_2NH_2$,
$-S(O)_2$phenyl,
benzoyl,
benzylamino,
-propylpyrrolidinyl,
-methylcyclopropyl,
cyclobutylamino,
cyclobutyl-$N(CH_3)$-,
piperidinyl,
imidazolyl,
morpholinyl,
morpholinylmethyl,
methylpiperazinylmethyl,
methylpiperazinyl,
pyrrolidinyl,
pyrrolidinylmethyl,
(methoxypyridinylmethyl)amino,
methylpyrrolidinyl,
difluoropyrrolidinyl,
dimethylpyrrolidinyl,
(methylcyclopropylmethyl)amino,
hydroxymethylpyrrolidinyl,

fluoropyrrolidinyl,
fluorophenylmethylamino,
piperazinlymethyl,
oxazolidinyl,
(methyloxetanmethyl)amino,
(methylcyclobutylmethyl)amino,
oxoimidazolidinyl, and
2-hydroxyethylpiperidinyl;

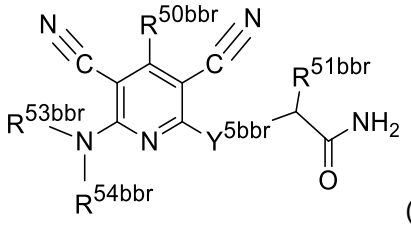
provided that:

X^{41bbr} and X^{42bbr} are not both hydrogen, and

R^{44bbr} and R^{45bbr} are not both hydrogen;

or a pharmaceutically acceptable salt or prodrug thereof.

5. A compound according to Claim 4 represented by the following Formula (Vbbr):



(Vbbr)

wherein:

Y^{5bbr} is selected from: S and NH;

R^{50bbr} is selected from:

C_{1-6}alkyl,
C_{1-6}alkyl substituted with from 1 to 9 substituents
independently selected from: fluoro and chloro,
-N(H)C_{1-4}alkyl,
-N(C_{1-4}alkyl)$_2$,
-SC_{1-4}alkyl,
C_{1-4}alkyloxy,
aryl,

alkyl substituted with from one to five substituents
independently selected from:
fluoro,

chloro,

-OH,

C_{1-6}alkyl, and

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro and chloro,

heteroaryl,

heteroalkyl substituted with from one to five substituents independently selected from:

fluoro,

chloro,

-OH,

C_{1-6}alkyl, and

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro and chloro,

cycloalkyl,

cycloalkyl substituted with from one to five substituents independently selected from:

fluoro,

chloro,

-OH,

C_{1-6}alkyl, and

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro and chloro;

R^{51bbr} is selected from:

$-CH_3$,

phenyl,

phenyl substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, chloro, -C(O)phenyl, pyrrolidinyl, $-C(O)NH_2$, $-S(O)_2NHCH_3$, $-OCH_2CH_2N(CH_3)_2$ and $-CH_2C(O)NH_2$,

thienyl,

piperidinyl,

pyridine, and

pyridine substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, and $-OCH_3$;

R^{53bbr} and R^{54bbr} are independently selected from:

hydrogen,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents

independently selected from: phenyl, morpholino, triazolyl, imidazolyl, -CH_2CH_2pyrrolidinyl, -$OC(O)NH_2$, -$OCH_2CH_2NH_2$, -$ONHC(NH_2)NH_2$, -$NHCH_2C(CH_3)_3$, -$NOCH_3$, -NHOH, -$NHCH_2CH_2F$, -$N(CH_3)CH_2CH_2OCH_3$, -$N(CH_2CH_3)_2$, -$NCH(CH_2OH)_2$, -$N(CH_2CH_2OH)_2$, -$NHCH_2CH_2OH$, -$NHCH_2CH_2NH_2$, -$N(CH_3)CH_2(CH_3)_2CH_2OH$, -$NHCH_2CH_3$, -$NHCH_2CH_2OCH_3$, -$N(CH_3)CH_2CH_2OH$, -$NHC(O)C(O)NH_2$, -$N(CH_3)CH_2CH_2CH_2OH$, -$N(CH_3)CH_2CH(OH)CH_2OH$, -$N(CH_3)CH_2CH_2NH_2$, oxo, -$NHCH_2C(CH_3)_2CH_2OH$, -OH, -$NH_2$, -$NHCH_3$, -$NHCH_2CH_2CH_2OH$, -$N(CH_3)_2$, -$N(CH_3)CH_2CH_3$, -$NHOC(CH_3)_2NH_2$, -$N(CH_3)CH_2$cyclopropyl, -$NHCH_2$cyclopropyl, -NHoxetanyl, -NCH_2CH_2triazole, piperazinyl, piperidinyl, pyrazolyl, azepinyl, azetidinyl, methoxy, and cyclopropylamino,

where said phenyl, morpholino, triazolyl, imidazolyl, azepinyl, azetidinyl, pyrrolidinyl piperazinyl, piperidinyl, oxetanyl, cyclopropyl, and pyrazolyl are optionally substituted with from 1 to 4 substituents independently selected from: methyl, fluoro, -NH_2, -$N(CH_3)_2$, hydroxymethyl, oxo, -OH, and -CH_2NH_2,

cycloalkyl,

cycloalkyl substituted with from one to five substituents independently selected from:

fluoro,

chloro,

-OH,

$C_{1\text{-}6}$alkyl, and

$C_{1\text{-}6}$alkyl substituted with from 1 to 9 substituents independently selected from: fluoro and chloro;

heterocycloalkyl, and

heterocycloalkyl substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

$C_{1\text{-}6}$alkyl,

$C_{1\text{-}6}$alkyl substituted with from 1 to 9 substituents independently selected from: fluoro and chloro,

$C_{1\text{-}4}$alkoxy, and

-OH, or

R^{53bbr} and R^{54bbr} are taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently

selected from O, N, and S, to form a heterocycloalkyl, to form a heterocycloalkyl, which is optionally substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, heterocycloalkyl, methylheterocycloalkyl, -OH, $-NH_2$, $-N(H)C_{1-5}$alkyl, aminoheterocycloalkyl, $-N(C_{1-5}alkyl)_2$, -CN, $-N(C_{1-4}alkyl)(CH_2OCH_3)$, and $-NHC_{1-4}$alkyl substituted by one or two substituents independently selected from oxo, NH_2, and -OH,

heterocycloalkyl,

heterocycloalkyl substituted with from 1 to 9 substituents independently selected from: C_{1-6}alkyl, $-C_{1-6}$alkylOH, fluoro, $-C_{1-6}alkylNH_2$, chloro, oxo and -OH,

C_{1-4}alkoxy,

C_{1-4}alkoxy substituted with from 1 to 4 substituents Independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

-CN,

oxo,

-OH,

$-OP(O)(OH)_2$,

-COOH,

$-CONH_2$,

$-NH_2$,

$-N(H)C_{1-4}$alkyl,

$-N(H)C_{1-6}$alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, aminoC_{1-4}alkoxy, heterocycloalkyl, methylheterocycloalkyl, -OH, $-NH_2$, $-N(H)C_{1-4}$alkyl, $-N(C_{1-4}alkyl)_2$, and -CN,

-Ooxetanyl,

$-ONHC(NH)NH_2$,

-NHcyclopropyl,

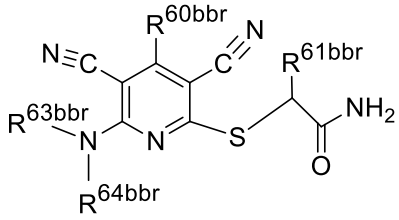
-NHoxetanyl,
-N(C_{1-4}alkyl)$_2$,
-S(O)$_2$$CH_2CH_3$,
S(O)$_2$$CH_2CH_2CH_3$,
-S(O)$_2$$CH_3$,
-S(O)$_2$phenyl,
benzoyl,
benzylamino,
-propylpyrrolidinyl,
-methylcyclopropyl,
cyclobutylamino,
cyclobutyl-N(CH_3)-,
piperidinyl,
imidazolyl,
morpholinyl,
morpholinylmethyl,
methylpiperazinylmethyl,
methylpiperazinlyl
pyrrolidinyl,
pyrrolidinylmethyl,
(methoxypyridinylmethyl)amino,
methylpyrrolidinyl,
difluoropyrrolidinyl,
dimethylpyrrolidinyl,
(methylcyclopropylmethyl)amino,
hydroxymethylpyrrolidinyl,
fluoropyrrolidinyl,
fluorophenylmethylamino,
piperazinylmethyl,
oxazolidinyl,
(methyloxetanylmethyl)amino,
(methylcyclobutylmethyl)amino,
oxoimidazolidinyl, and
2-hydroxyethylpiperidinyl;

provided that:

R^{53bbr} and R^{54bbr} are not both hydrogen;

or a pharmaceutically acceptable salt or prodrug thereof.

6. A compound according to claim 4 or claim 5 represented by the following Formula (VIbbr):



(VIbbr)

wherein:

R^{60bbr} is selected from:

C_{1-3}alkyl,

C_{1-3}alkyl substituted with from 1 to 6 substituents

independently selected from: fluoro and chloro,

-N(H)C_{1-3}alkyl,

-N(C_{1-3}alkyl)$_2$,

-SC_{1-4}alkyl,

C_{1-3}alkyloxy,

aryl,

aryl substituted with from one to 3 substituents

independently selected from:

fluoro,

chloro,

-OH, and

C_{1-3}alkyl,

heteroaryl,

heteroaryl substituted with from one to 3 substituents

independently selected from:

fluoro,

chloro,

-OH, and

C_{1-3}alkyl,

cycloalkyl,

cycloalkyl substituted with from one to three substituents

independently selected from:

fluoro,

chloro,

-OH, and

C_{1-3}alkyl;

R^{61bbr} is selected from:

-CH_3,

phenyl,

phenyl substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, chloro, -C(O)phenyl, pyrrolidinyl, $-C(O)NH_2$, $-S(O)_2NHCH_3$, $-OCH_2CH_2N(CH_3)_2$ and $-CH_2C(O)NH_2$,

thienyl,

piperidinyl,

pyridine, and

pyridine substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, and $-OCH_3$;

R^{63bbr} and R^{64bbr} are independently selected from:

hydrogen,

C_{1-4}alkyl,

C_{1-4}alkyl substituted with from 1 to 4 substituents independently selected from: phenyl, morpholino, triazolyl, imidazolyl, $-CH_2CH_2$pyrrolidinyl, $-OC(O)NH_2$, $-OCH_2CH_2NH_2$, $-ONHC(NH_2)NH_2$, $-NHCH_2C(CH_3)_3$, $-NOCH_3$, -NHOH, $-NHCH_2CH_2F$, $-N(CH_3)CH_2CH_2OCH_3$, $-N(CH_2CH_3)_2$, $-NCH(CH_2OH)_2$, $-N(CH_2CH_2OH)_2$, $-NHCH_2CH_2OH$, $-NHCH_2CH_2NH_2$, $-N(CH_3)CH_2(CH_3)_2CH_2OH$, $-NHCH_2CH_3$, $-NHCH_2CH_2OCH_3$, $-N(CH_3)CH_2CH_2OH$, $-NHC(O)C(O)NH_2$, $-N(CH_3)CH_2CH_2CH_2OH$, $-N(CH_3)CH_2CH(OH)CH_2OH$, $-N(CH_3)CH_2CH_2NH_2$, oxo, $-NHCH_2C(CH_3)_2CH_2OH$, -OH, $-NH_2$, $-NHCH_3$, $-NHCH_2CH_2CH_2OH$, $-N(CH_3)_2$, $-N(CH_3)CH_2CH_3$, $-NHOC(CH_3)_2NH_2$, $-N(CH_3)CH_2$cyclopropyl, $-NHCH_2$cyclopropyl, -NHoxetanyl, $-NCH_2CH_2$triazole, piperazinyl, piperidinyl, pyrazolyl, azepinyl, azetidinyl, methoxy, and cyclopropylamino,

where said phenyl, morpholino, triazolyl, imidazolyl, azepinyl, azetidinyl, pyrrolidinyl piperazinyl, piperidinyl, oxetanyl, cyclopropyl, and pyrazolyl are optionally substituted with from 1 to 4 substituents independently selected from: methyl, fluoro, $-NH_2$, $-N(CH_3)_2$, hydroxymethyl, oxo, -OH, and $-CH_2NH_2$,

cycloalkyl,

cycloalkyl substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

-OH, and

C_{1-6}alkyl,

heterocycloalkyl, and

heterocycloalkyl substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

-OH, and

C_{1-6}alkyl, or

R^{63bbr} and R^{64bbr} are taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently selected from O, N, and S, to form a heterocycloalkyl, to form a heterocycloalkyl, which is optionally substituted with from 1 to 5 substituents independently selected from:

fluoro,

chloro,

-OH,

$-OP(O)(OH)_2$,

-CN,

C_{1-6}alkyl,

C_{1-6}alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, heterocycloalkyl, methylheterocycloalkyl, -OH, $-NH_2$, $-N(H)C_{1-5}$alkyl, aminoheterocycloalkyl, $-N(C_{1-5}alkyl)_2$, -CN, $-N(C_{1-4}alkyl)(CH_2OCH_3)$, and $-NHC_{1-4}$alkyl substituted by one or two substituents independently selected from oxo, NH_2, and -OH,

heterocycloalkyl,

heterocycloalkyl substituted with from 1 to 9 substituents independently selected from: C_{1-6}alkyl, $-C_{1-6}$alkylOH, fluoro, chloro, oxo and -OH,

C_{1-4}alkoxy,

C_{1-4}alkoxy substituted with from 1 to 4 substituents independently selected from: fluoro, oxo, -OH, -COOH, $-NH_2$, and -CN,

oxo,

$-NH_2$,

$-N(H)C_{1-6}$alkyl,

$-N(H)C_{1-6}$alkyl substituted with from 1 to 9 substituents independently selected from: fluoro, chloro, C_{1-4}alkoxy, oxo, phenyl, cycloalkyl, aminoC_{1-4}alkoxy, heterocycloalkyl,

methylheterocycloalkyl, -OH, -NH_2, -N(H)C_{1-4}alkyl, -N(C_{1-4}alkyl)$_2$, and -CN,

-ONHC(NH)NH_2,

-Ooxetanyl,

-ONHC(NH)NH_2,

-NHcyclopropyl,

-NHoxetanyl,

-N(C_{1-4}alkyl)$_2$,

-S(O)$_2CH_2CH_3$,

S(O)$_2CH_2CH_2CH_3$,

-S(O)$_2CH_3$,

-S(O)$_2$phenyl,

benzoyl,

benzylamino,

-propylpyrrolidinyl,

-methylcyclopropyl,

cyclobutylamino,

cyclobutyl-N(CH_3)-,

piperidinyl,

imidazolyl,

morpholinyl,

morpholinylmethyl,

methylpiperazinylmethyl,

methylpiperazinyl,

pyrrolidinyl,

pyrrolidinylmethyl,

(methoxypyridinylmethyl)amino,

methylpyrrolidinyl,

difluoropyrrolidinyl,

dimethylpyrrolidinyl,

(methylcyclopropylmethyl)amino,

hydroxymethylpyrrolidinyl,

fluoropyrrolidinyl,

(fluorophenylmethyl)amino,

piperazinylmethyl,

oxazolidinyl,

(methyloxetanylmethyl)amino,

(methylcyclobutylmethyl)amino,

oxoimidazolidinyl, and

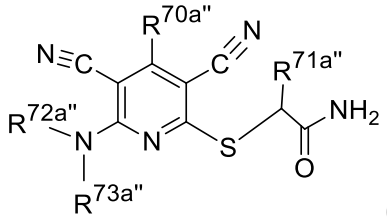
2-hydroxyethylpiperidinyl;

provided that:

R^{63bbr} and R^{64bbr} are not both hydrogen;

or a pharmaceutically acceptable salt or prodrug thereof.

7. A compound according to any one of claims 4 to 6 represented by the following Formula (Qb):



(Qb)

wherein:

$R^{70a''}$ is selected from:

ethyl,
$-OCH_3$,
$-CH_2CF_3$, and
cyclopropyl;

$R^{71a''}$ is selected from:

phenyl,
phenyl substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, and chloro,
pyridine, and
pyridine substituted with 1 or 2 substituents independently selected from: fluoro, $-CH_3$, $-CF_3$, and $-OCH_3$; and

$R^{72a''}$ and $R^{73a''}$ are independently selected from:

hydrogen,
C_{1-4}alkyl,
C_{1-4}alkyl substituted with from 1 to 4 substituents independently selected from: phenyl, morpholino, triazolyl, imidazolyl, $-CH_2CH_2$pyrrolidinyl, $-OC(O)NH_2$, $-OCH_2CH_2NH_2$, $-ONHC(NH_2)NH_2$, $-NHCH_2C(CH_3)_3$, $-NOCH_3$, $-NHOH$, $-NHCH_2CH_2F$, $-N(CH_3)CH_2CH_2OCH_3$, $-N(CH_2CH_3)_2$, $-NCH(CH_2OH)_2$, $-N(CH_2CH_2OH)_2$, $-NHCH_2CH_2OH$, $-NHCH_2CH_2NH_2$, $-N(CH_3)CH_2(CH_3)_2CH_2OH$, $-NHCH_2CH_3$,

$-NHCH_2CH_2OCH_3$, $-N(CH_3)CH_2CH_2OH$, $-NHC(O)C(O)NH_2$, $-N(CH_3)CH_2CH_2CH_2OH$, $-N(CH_3)CH_2CH(OH)CH_2OH$, $-N(CH_3)CH_2CH_2NH_2$, oxo, $-NHCH_2C(CH_3)_2CH_2OH$, -OH, $-NH_2$, $-NHCH_3$, $-NHCH_2CH_2CH_2OH$, $-N(CH_3)_2$, $-N(CH_3)CH_2CH_3$, $-NHOC(CH_3)_2NH_2$, $-N(CH_3)CH_2$cyclopropyl, $-NHCH_2$cyclopropyl, -NHoxetanyl, $-NCH_2CH_2$triazole, piperazinyl, piperidinyl, pyrazolyl, azepinyl, azetidinyl, methoxy, and cyclopropylamino,

where said phenyl, morpholino, triazolyl, imidazolyl, azepinyl, azetidinyl, pyrrolidinyl piperazinyl, piperidinyl, oxetanyl, cyclopropyl, and pyrazolyl are optionally substituted with from 1 to 4 substituents independently selected from: methyl, fluoro, $-NH_2$, $-N(CH_3)_2$, hydroxymethyl, oxo, -OH, and $-CH_2NH_2$,

cyclobutyl,

aminocyclobutyl,

tetrahydrofuran,

5-oxa-2azaspiro[3.4]octan, and

8-azabicyclo[3.2.1]octan, or

$R^{72a''}$ and $R^{73a''}$ are taken together with the nitrogen to which they are attached, and optionally from 1 to 3 additional heteroatoms independently selected from O, N, and S, to form a heterocycloalkyl selected from:

pyrrolidinyl,

pyrrolo[3,4-c]pyrazolyl,

piperidinyl,

1,4diazepanyl,

piperazinyl,

6,7-dihydro-triazolo[4,5-c]pyridinyl,

2,9-diazaspiro[5.5]undecanyl,

2,8-diazaspiro[4.5]decanyl,

octahydro-1H-pyrrolo[1,2a][1,4]diazepinyl,

oxa-diazaspiro[4.5]decanyl,

oxazolyl,

morpholinyl,

1-oxa-6-azaspiro[3.4]octanyl,

2-oxa-6-azaspiro[3.4]octanyl,

1,7-diazaspiro[3.5]nonanyl,

2,7-diazaspiro[3.5]nonanyl,

2,6-diazaspiro[3.4]octanyl,

azetidinyl,

hexahydropyrrolo[3,4-b]oxazinyl,

dihydronaphthyridinyl,
diazabicycloheptanyl,
1,8-diazaspiro[4.5]decanyl, and
5-oxa-2-azaspiro[3.4]octanyl,
all of which are optionally substituted with from 1 to 5 substituents independently selected from:
fluoro,
chloro,
oxo,
-OH,
$-OP(O)(OH)_2$,
-CN,
$-CH_3$,
$-CH_2OH$,
methoxy,
$-CH_2CH_3$,
$-C(O)CH_3$,
$-C(O)NH_2$,
$-OCH_2CH_2OH$,
$-OCH_2CH_2NH_2$,
$-ONHC(NH)NH_2$,
$-OC(O)NH_2$,
-Ooxetanyl,
$-CH_2CH_2OH$,
$-CH_2CH_2CH_2OH$,
$-CH_2CH_2CH_3$,
$-CH_2CH_2OCH_3$,
$-CH_2CH(OH)CH_3$,
$-CH_2CH(OH)CH_2OH$,
$-CH_2C(O)OCH_3$,
$-CH_2C(O)NH_2$,
$-C(O)CH(CH_3)_2$,
$-CH_2CH_2N(CH_3)_2$,
$-CH_2CH_2NHCH_2CH_3$,
$-CH_2CH_2CH_2N(CH_3)_2$,
$-CH_2CH_2NHCH_2C(CH_3)_3$,
$-CH_2CH_2N(CH_3)CH_2OCH_3$,
$-C(CH_3)_2CH_2OH$,
$-CH_2C(CH_3)_2OH$,
$-CH_2C(CH_3)_2OCH_3$,

-C(O)CH_2OH,
-CH_2isothiazolyl,
-CH_2thiazolyl,
-CH_2pyrazolyl,
-CH_2imidazolyl,
-CH_2pyridinyl,
-CH_2oxazolyl,
-CH_2pyrrolyl,
-CH_2isoxazoly,
-CH_2furanyl,
-$CH_2CH_{2morpholinyl}$,
-CH_2CH_2pyrrolidinyl,
-CH_2CH_2pyrrolidinylCH_3,
-$CH_2CH_2CH_2$pyrrolidinyl,
-C(O)phenyl,
-C(O)C(tetrahydropyranyl)NH_2,
-NH_2,
-$NHCH_3$,
-$N(CH_3)_2$,
-NHC(O)CH_3,
-$NHCH_2CHF_2$,
-$NHCH_2C(CH_{3)3}$,
-$NHCH_2CH(CH_{3)2}$,
-$NHCH_2CH_2OCH_3$,
-$NHCH_2CH_2OH$,
-$NHCH_2CH_2NH_2$,
-$NHCH_2C(O)OH$,
-$NHC(O)CH_2NH_2$,
-$NHC(O)CH_2CH_2CH_2NH_2$,
-$NHCH_2C(O)NH_2$,
-$NHCH_2C(OH)(CH_3)_2$,
-$NHC(O)CH(CH_3)NH_2$,
-$NHC(O)OCH(CH_3)NH_2$,
-$NHC(O)CH(CH_3)_2$,
-$NHC(O)C(CH_3)_2NH_2$,
-$NHC(O)CH_2OH$,
-$NHC(O)CH(CH_2OH)NH_2$,
-NHC(O)(oxetanyl)NH_2,
-$NHC(O)OC(CH_3)_3$,
-$NHC(CH_3)_2C(O)OCH_3$,

-NHcyclopropyl,
-NHoxetanyl,
-CH_2NH_2,
-$CH_2CH_2NH_2$,
-$CH_2CH_2CH_2NH_2$,
-$CH_2NHCH_2C(CH_3)_3$,
-$CH_2NHC(O)C(CH_3)_3$,
-$CH_2NHC(O)CH_2NH_2$,
-$CH_2NHC(O)CH_2OH$,
-$CH_2N(CH_3)_2$,
-CH_2NHCH_3,
-$CH_2N(CH_2CH_3)_2$,
-$CH_2CH_2N(CH_3)_2$,
-$S(O)_2CH_2CH_3$,
-$S(O)_2CH_2CH_2CH_3$,
-$S(O)_2$phenyl,
-$S(O)_2CH_3$,
benzoyl,
benzylamino,
-propylpyrrolidinyl,
-methylcyclopropyl,
cyclobutylamino,
cyclobutyl-$N(CH_3)$-,
piperidinyl,
imidazolyl,
morpholinyl,
morpholinylmethyl,
methylpiperazinylmethyl,
methylpiperazinyl,
pyrrolidinyl,
pyrrolidinylmethyl,
(methoxypyridinylmethyl)amino,
methylpyrrolidinyl,
difluoropyrrolidinyl,
dimethylpyrrolidinyl,
(methylcyclopropylmethyl)amino,
hydroxymethylpyrrolidinyl,
fluoropyrrolidinyl,
(fluorophenylmethyl)amino,
piperazinylmethyl,

oxazolidinyl,
(methyloxetanylmethyl)amino,
(methylcyclobutylmethyl)amino,
oxoimidazolidinyl, and
2-hydroxyethylpiperidinyl;

provided that:

$R^{72a''}$ and $R^{73a''}$ are not both hydrogen;

or a pharmaceutically acceptable salt or prodrug thereof.

8. A compound of claim 4 selected from:

2-{[3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-{[3,5-dicyano-4-cyclopropyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-propyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-morpholinopyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-methyl-3-oxopiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-(pyridin-4-yl)acetamide;

2-[(3,5-dicyano-4-ethyl-6-{methyl[2-(morpholin-4-yl)ethyl]amino}pyridin-2-yl)sulfanyl]-2-phenylacetamide;

2-{[3,5-dicyano-4-ethyl-6-(4-propylpiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-dicyano-4-ethyl-6-[4-(piperidin-4-yl)piperazin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-({3,5-dicyano-4-cyclopropyl-6-[3-(hydroxymethyl)piperazin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-{[3,5-dicyano-4-cyclopropyl-6-(3-oxopiperazin-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-dicyano-4-cyclopropyl-6-[4-(morpholin-4-yl)piperidin-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-methylpiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2-(hydroxymethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2,6-dimethylmorpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-aminopiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(dimethylamino)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(4-(dimethylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-cyclopropyl-6-((R)-3-hydroxypiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-cyclopropyl-6-((S)-3-hydroxypiperidin-1-yl)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-4-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-ethylpiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(1-oxa-6-azaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(3-aminopropyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(1,7-diazaspiro[3.5]nonan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(pyrrolidin-1-ylmethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(4-methylpiperazin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-6-(1,4-diazepan-1-yl)-4-ethylpyridin-2-yl)amino)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,7-diazaspiro[3.5]nonan-7-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,6-diazaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(1,4-diazepan-1-yl)pyridin-2-yl)thio)propanamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-oxoimidazolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-hydroxypiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-oxopiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((2-methoxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-methoxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-morpholinopyridin-2-yl)thio)-2-phenylacetamide;

2-[[6-(azetidin-1-yl)-3,5-dicyano-4-ethyl-2-pyridyl]sulfanyl]-2-phenyl-acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-oxopiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(1'-(2-hydroxyethyl)-[4,4'-bipiperidin]-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-((3S,5R)-3,5-dimethylpiperazin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(8-azabicyclo[3.2.1]octan-3-yl(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(2-(hydroxymethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-[(3,5-Dicyano-4-ethyl-6-morpholino-2-pyridyl)sulfanyl]-2-phenyl-acetamide;

2-{[3,5-dicyano-4-ethyl-6-(5-methyl-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-Dicyano-4-ethyl-6-[4-(2-methoxyethyl)-1,4-diazepan-1-yl]pyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxypropyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

Methyl 2-[4-(6-{[carbamoyl(phenyl)methyl]sulfanyl}-3,5-dicyano-4-ethylpyridin-2-yl)-1,4-diazepan-1-yl]acetate;

2-{[3,5-Dicyano-4-cyclopropyl-6-(4-methyl-5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-4-cyclopropyl-6-(5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-4-ethyl-6-(4-methyl-5-oxo-1,4-diazepan-1-yl)pyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-{[3,5-Dicyano-6-(1,4-diazepan-1-yl)-4-ethylpyridin-2-yl]sulfanyl}-2-phenylacetamide;

2-({3,5-Dicyano-6-[4-(2-hydroxyethyl)-1,4-diazepan-1-yl]-4-(2,2,2-trifluoroethyl)pyridin-2-yl}sulfanyl)-2-phenylacetamide;

(2R)-2-({3,5-Dicyano-4-ethyl-6-[4-(2-hydroxyethyl)-1,4-diazepan-1-yl]pyridin-2-yl}amino)-2-phenylacetamide;

2-({6-[(3S)-3-Aminopyrrolidin-1-yl]-3,5-dicyano-4-cyclopropylpyridin-2-yl}sulfanyl)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2,9-diazaspiro[5.5]undecan-9-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(hexahydro-1H-pyrrolo[1,2-a][1,4]diazepin-2(3H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-methyl-2,9-diazaspiro[5.5]undecan-9-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(2-(cyclopropylmethyl)-2,9-diazaspiro[5.5]undecan-9-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(3-(dimethylamino)propyl)piperazin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-3-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-([4,4'-Bipiperidin]-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(2-Aminoethyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(3-Aminopropyl)piperazin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(4-((4-methylpiperazin-1-yl)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Acetylpiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(dimethylamino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(4-Chlorophenyl)-2-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-[(3,5-Dicyano-4-cyclopropyl-6-morpholino-2-pyridyl)sulfanyl]-2-phenyl-acetamide;

2-((6-(4-Benzoylpiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((5S,6S)-6-hydroxy-1-(methylsulfonyl)-1,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4,4-difluoropiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-(furan-2-yl)-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)acetamide;

(2S)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-(4-(3-Aminooxetane-3-carbonyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)tetrahydro-2H-pyran-4-carboxamide;

2-((6-(4-(4-Aminotetrahydro-2H-pyran-4-carbonyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Aminoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-hydroxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-Dicyano-4-ethyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-2-methylpropanamide;

2-((6-(4-(2-Aminoethoxy)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl dihydrogen phosphate;

(2S)-2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl 2-amino-3-methylbutanoate;

2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl dihydrogen phosphate;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl dihydrogen phosphate;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(piperidin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(propylsulfonyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(phenylsulfonyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-oxa-6-azaspiro[3.4]octan-6-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-ethyl-1,4-diazepan-1-yl)pyridin-2-yl)amino)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-(3-(pyrrolidin-1-yl)propyl)-1,4-diazepan-1-yl)pyridin-2-yl)amino)-2-phenylacetamide;

2-(3,5-Dicyano-4-cyclopropyl-6-(3-hydroxypiperidin-1-yl)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-Dichloro-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(1,1-dioxidothiomorpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(methyl(2-(piperazin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((4-Cyano-3-(1,4-diazepan-1-yl)-6,7-dihydro-5H-cyclopenta[c]pyridin-1-yl)thio)-2-phenylacetamide;

2-((6-(4-(1H-Imidazol-1-yl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyridin-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(2-(dimethylamino)ethoxy)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-3-yl)amino)acetic acid;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxazol-2-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Pyrrol-2-yl) methyl) piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(3,4-dihydro-2,7-naphthyridin-2 (1H)-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-3-yl)acetamide;

2-((6-(4-((1H-Pyrrol-3-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isoxazol-3-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxazol-5-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isoxazol-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

3-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxetane-3-carboxamide;

2-((6-(4-((1H-Pyrazol-4-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Imidazol-5-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(1-hydroxy-2-methylpropan-2-yl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((1H-Imidazol-2-yl)methyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethoxy-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxy-2-methylpropyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(thiazol-5-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(isothiazol-4-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2- (5-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(furan-3-ylmethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((2-morpholinoethyl)thio)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-methyl-1,4-diazepan-1-yl)-4-(methylthio)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dichloro-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(hexahydropyrrolo[3,4-b][1,4]oxazin-6(2H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(5-methylpyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(6-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl) thio)-2-(4-methylpyridin-2-yl) acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(2,4-difluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(5-fluoropyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethoxy-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)propanamide;

2-((3,5-Dicyano-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)-4-propoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-methyl-2,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(3,4-difluorophenyl)acetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidine-4-carboxamide;

2-((3,5-Dicyano-6-((2-(dimethylamino)ethyl)thio)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-((3S,4R)-3,4-dihydroxypyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-fluoropyridin-2-yl) acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(5-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(1-hydroxy-2-methylpropan-2-yl)piperazin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-(trifluoromethyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethoxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-(2-fluoropyridin-3-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl)thio)-2-(6-fluoropyridin-3-yl)acetamide;

3-((6-(2-Amino-2-oxo-1-phenylethylthio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)propanamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(oxetan-3-yloxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-((2,2-difluoroethyl) amino)-4-methylpiperidin-1-yl)-4-ethylpyridin-2-yl) thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

2-((6-(4-Aminopiperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(pyrrolo[3,4-c]pyrazol-5(1H,4H,6H)-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(5-methoxypyridin-2-yl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(5-methylpyridin-2-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2-fluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-hydroxy-4-(hydroxymethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(2-oxo-3-oxa-1,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-(hydroxymethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(Aminomethyl)-4-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3-Benzoylphenyl)-2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)acetamide;

2-(4-Benzoylphenyl)-2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2-methylpyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-(pyrrolidin-1-yl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(3-fluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(2,5-difluoropyridin-4-yl)acetamide;

2-((3,5-Dicyano-6-(4-(2,5-dioxoimidazolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-Amino-1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) piperidine-4-carboxamide;

2-((3,5-Dicyano-6-(4-(2,5-dioxopyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide (isomer 1);

2-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide (Isomer 2) ;

2-((3,5-Dicyano-4-ethyl-6-(2-oxo-1-oxa-3,8-diazaspiro[4.5]decan-8-yl)pyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-4-hydroxy piperidine-4-carboxamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl carbamate;

2-((3,5-Dicyano-6-(4-(2,4-dioxooxazolidin-3-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

3-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-2-hydroxy-2-methylpropanamide;

2-((3,5-Dicyano-4-ethyl-6-(3-(hydroxymethyl)azetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-Dicyano-4-ethyl-6-(piperazin-1-yl)pyridin-2-ylthio)-2-(thiophen-3-yl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl) pyridin-2-yl) thio)-2-(5-methylpyridin-3-yl) acetamide;

2-((6-(4-(3-Amino-2-oxopyrrolidin-1-yl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl (2S)-2-amino-3-methylbutanoate;

2-((6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl) (methyl) amino)ethyl (2S)-2-amino-3-methylbutanoate;

2,2'-((3,5-Dicyano-4-ethylpyridine-2,6-diyl)bis(sulfanediyl))bis(2-phenylacetamide) ;

(2S)-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4 –ethyl pyridin-2-yl)azetidin-3-yl)methyl 2-amino-3-methylbutanoate;

2-((6-(3-Aminoazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-methylpyridin-2-yl)thio)-2-phenylacetamide;

N-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-2-hydroxyacetamide;

N-(1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl)-2-hydroxyacetamide;

2-((3-Cyano-4-ethyl-5-methyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(5-methyl-2,5-diazabicyclo[2.2.1]heptan-2-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-(pyrrolidin-1-yl)ethyl)piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide-2-d;

(R)-2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide-2-d;

2-((6-(4-(4-Bromobenzoyl)piperazin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-cyanopiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(S)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(pyridin-2-yl)acetamide;

2-((3,5-Dichloro-4-ethyl-6-(piperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

tert-Butyl (1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)carbamate;

2-((6-(3-(2-Amino-2-oxoethyl)azetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(2R)-1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl 2-amino-3-methylbutanoate;

2-((3,5-Dicyano-4-ethyl-6-(methyl((5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((4H-1,2,4-Triazol-3-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethoxy-6-methylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4,6-diethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-(4H-1,2,4-Triazol-4-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Pyrazol-3-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(6,7-dihydro-1H-[1,2,3]triazolo[4,5-c]pyridin-5(4H)-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Imidazol-2-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(((1H-Imidazol-5-yl)methyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)propanamide;

4-(2-Amino-1-((3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-oxoethyl)benzamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropyl pyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-((2-Aminoethyl)(methyl)amino)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)-2-methylpropanamide;

4-(2-Amino-1-((3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-oxoethyl)benzamide;

2-(6-(4-Aminopiperidin-1-yl)-3-cyano-4-ethyl-5-methylpyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-(4-(N-methylsulfamoyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(6-fluoro-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-Amino-3,3-difluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

tert-Butyl (1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3,3-difluoropiperidin-4-yl) carbamate;

2-((3,5-Dicyano-4-cyclopropyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-(3-hydroxyazetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidine-3-carboxamide;

2-((6-((3-Aminopropyl) (methyl) amino)-3, 5-dicyano-4-cyclopropylpyridin-2-yl) thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-cyclopropyl-6-((2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)(methyl)amino) pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((2-Amino-2-oxoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-Amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)ethyl carbamate;

(2R)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)-3-hydroxypropanamide;

(2S)-2-Amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) piperidin-4-yl)-3-hydroxypropanamide;

2-(4-(2-Amino-2-oxoethyl)phenyl)-2-(3,5-dicyano-4-ethyl-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-ylthio)acetamide;

2-(4-(2-Amino-2-oxoethyl)phenyl)-2-(3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-ylthio)acetamide;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(4-(N-methylsulfamoyl)phenyl)acetamide;

2-((3,5-Dicyano-6-(dimethylamino-d_6)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-6-(dimethylamino)-4-ethylpyridin-2-ylthio)-2-(3-(2-(dimethylamino)ethoxy)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-A(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide; (single enantiomer)

(3*S*)-1-(6-((2-amino-2-oxo-1-phenylethyl) thio)-3, 5-dicyano-4-ethylpyridin-2-yl) Pyrrolidin-3-yl dihydrogen phosphate;

(3*R*)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(*S*)-1-(6-(((*S*)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(*S*)-1-(6-(((*R*)-2-amino-2-oxo-1-phenylethyl) thio)-3,5-dicyano-4-ethylpyridin-2-yl) pyrrolidin-3-yl dihydrogen phosphate;

2-((3,5-Dicyano-6-(dimethylamino)-4-ethylpyridin-2-yl)thio)-2-(3-(dimethylphosphoryl)phenyl)acetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(3-(dimethylphosphoryl)phenyl)acetamide;

(*R*)-2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

(*R*)-2-((3,5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-methoxyphenyl)acetamide;

(*R*)-2-(4-chlorophenyl)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)acetamide;

(*R*)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-fluoro phenyl)acetamide;

(*S*)-1-(6-(((*R*)-2-amino-1-(4-fluorophenyl)-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((3, 5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(4-fluorophenyl) acetamide;

2-((3,5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 6-difluorophenyl) acetamide;

2-((3, 5-dicyano-4-ethyl-6-((*S*)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 3-difluorophenyl) acetamide;

2-((3, 5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl) pyridin-2-yl) thio)-2-(2, 4-difluorophenyl) acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-2-(hydroxymethyl)pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(pyrrolidin-1-ylmethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclobutylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((3-methyloxetan-3-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(4-methylpiperazin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-2-methylpyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2R,5S)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-2-methylpyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclobutyl(methyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(6-(4-(benzylamino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((6-methoxypyridin-2-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((S)-3-fluoropyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-((R)-2-methylpyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-3-fluoropyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2S,5S)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-((S)-2-methylpyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((R)-2-(hydroxymethyl)pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((1-methylcyclobutyl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((6-methoxypyridin-3-yl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-(ethylamino)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((4-methylpiperazin-1-yl)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(methylamino)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2R,5R)-2,5-dimethylpyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(((1-methylcyclopropyl)methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((4-fluorobenzyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-2-(hydroxymethyl)pyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-6-((2-((2S,5R)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-ylthio)-2-phenylacetamide;

2-((6-((2-(azepan-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(piperidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-2-(hydroxymethyl)pyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-(ethyl(methyl)amino)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((2R,5R)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-((S)-3-hydroxypyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

methyl 2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)amino)-2-methylpropanoate;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(neopentylamino)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-(methyl(2-(1-methylcyclopropylamino)ethyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((2S,5S)-2,5-dimethylpyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((2-methoxyethyl)amino)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxy-2-methylpropyl)(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-(dimethylamino)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-(3,5-dicyano-4-ethyl-6-((2-((R)-3-hydroxypyrrolidin-1-yl)ethyl)(methyl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((2-fluoroethyl)amino)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(3,3-difluoropyrrolidin-1-yl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)amino)acetic acid;

2-((6-((3-aminocyclobutyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-(3,5-dicyano-4-ethyl-6-(methyl((R)-tetrahydrofuran-3-yl)amino)pyridin-2-ylthio)-2-phenylacetamide;

(S)-2-(3,5-dicyano-4-ethyl-6-(methyl((R)-tetrahydrofuran-3-yl)amino)pyridin-2-ylthio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-morpholinopiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(2-hydroxyethyl)-3-oxopiperazin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(pyrrolidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3S,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

rel-2-((6-(trans)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3R,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-fluoro-4-((2-methoxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-(pyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(3-((dimethylamino)methyl)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxy-2-methylpropyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3S,4R)-4-amino-3-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-(diethylamino)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((R)-3-(dimethylamino)pyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((S)-3-(dimethylamino)pyrrolidin-1-yl)ethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3R,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((3S,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-(methylamino)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((3R,4R)-4-amino-3-hydroxypiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-aminopyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-(aminomethyl)pyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-6-(4-(cyclopropylamino)-3-fluoropiperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((S)-3-aminopyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-((R)-3-aminopyrrolidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

3,5-dicyano-6-((R)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(S)-2-((6-((3S,4R)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-(trifluoromethyl)phenyl)acetamide;

tert-butyl ((3S,4R)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

rel-tert-butyl (cis)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-fluoropiperidin-4-yl)carbamate;

2-((6-((2-((S)-3-aminopyrrolidin-1-yl)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((R)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

tert-butyl ((3R,4S)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

rel-tert-butyl (cis)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-fluoropiperidin-4-yl)carbamate;

2-((3,5-dicyano-6-((S)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(S)-2-((6-((3R,4S)-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-((2-hydroxy-2-methylpropyl)amino)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

tert-butyl ((3R,4R)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)-3-hydroxypiperidin-4-yl)carbamate;

2-((3,5-dicyano-6-((S)-3-(dimethylamino)pyrrolidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

rel-2-((6-cis-4-amino-3-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(dimethylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(ethyl(methyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(methyl(neopentyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-(cyclopropylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-methoxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(4-((2,2-difluoroethyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((R)-2-((neopentylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(2-((dimethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(2-((diethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2-(pyrrolidin-1-ylmethyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((R)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(2-((methylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-(3-((dimethylamino)methyl)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(3-((methylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-2-((neopentylamino)methyl)morpholino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-((neopentylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((2S)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-methylpropanamide;

2-((6-((S)-3-(aminomethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((R)-2-((diethylamino)methyl)morpholino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((2R)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-methylpropanamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(3-fluoropyridin-2-yl)acetamide;

2-((6-((S)-2-(aminomethyl)morpholino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(((3S)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-3-yl)methyl)-2-methylpropanamide;

2-amino-N-(((3S)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-3-yl)methyl)acetamide;

2-amino-N-(((2R)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)acetamide;

2-((6-((R)-3-(aminomethyl)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-((3,5-dicyano-4-ethyl-6-((R)-3-((neopentylamino)methyl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

2-amino-N-(((2S)-4-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)acetamide;

N-(((R)-4-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)morpholin-2-yl)methyl)-2-hydroxyacetamide;

(S)-2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-hydroxyethyl)-N-methylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((1-(hydroxymethyl)cyclopropyl)methyl)-N-methylacetamide;

2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)acetamide;

(2S)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)-3-hydroxypropanamide;

2-((6-((S)-3-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-3-hydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(2R)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)-3-hydroxypropanamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxy-2,2-dimethylpropyl)-N-methylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-3-hydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-amino-4-methylpiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-(aminomethyl)-4-fluoropiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide hydrochloride;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N-(2-aminoethyl)acetamide hydrochloride;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-oxo-2-(pyrrolidin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(4-hydroxypiperidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-oxo-2-(piperazin-1-yl)ethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(methyl(2-morpholino-2-oxoethyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((S)-3-(aminomethyl)-3-hydroxypyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(guanidinooxy)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-amino-N-(2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl)-2-methylpropanamide;

2-((6-((2-(2-aminoethoxy)ethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

4-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)butanamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-aminoethyl)acetamide;

2-((6-((2-(azetidin-1-yl)-2-oxoethyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-(aminomethyl)-3-fluoropyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(guanidinooxy)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-aminoazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide; (single stereoisomer)

2-((3,5-dicyano-4-ethyl-6-((R)-3-(methylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3R,4S)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((6-((S)-3-(aminomethyl)-3-fluoropyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N-(1,3-dihydroxypropan-2-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(oxetan-3-ylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)(methyl)amino)-N,N-bis(2-hydroxyethyl)acetamide;

2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)amino)-4-methylpiperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-(guanidinooxy)ethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-((2-aminoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-2-(hydroxymethyl)morpholino)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((cis)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((S)-3-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3S,4S)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-(neopentylamino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-3-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((3R,4R)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxy-3-(hydroxymethyl)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(2S)-2-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)piperidin-4-yl)propanamide;

2-((6-(4-(2-aminoethoxy)piperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-cyclopropyl-6-(4-((2-hydroxyethyl)amino)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(1,3-dihydroxypropan-2-yl)acetamide;

2-((3,5-dicyano-6-((2-((3R,5S)-3,5-dihydroxypiperidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((2-((3S,4S)-3,4-dihydroxypyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-((2-hydroxyethyl)amino)-4-(hydroxymethyl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((R)-2-(hydroxymethyl)morpholino)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-methoxyacetamide;

2-((3,5-dicyano-4-ethyl-6-((2-((3R,4R)-3-hydroxy-4-(hydroxymethyl)pyrrolidin-1-yl)-2-oxoethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxypropyl)-N-methylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((R)-2,3-dihydroxypropyl)acetamide;

2-((6-(4-((2-amino-2-oxoethyl)amino)piperidin-1-yl)-3,5-dicyano-4-cyclopropylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N,N-bis(2-hydroxyethyl)acetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(2-hydroxyethyl)acetamide;

2-((6-((3-aminopropyl)(methyl)amino)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(3-(aminomethyl)azetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-((1-(hydroxymethyl)cyclopropyl)methyl)acetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(2,4-difluorophenyl)acetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-(hydroxymethyl)oxetan-3-yl)acetamide;

2-((3,5-dicyano-4-ethyl-6-(3-(guanidinooxy)azetidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxypropyl)acetamide;

2-((3,5-dicyano-6-(4-(2,3-dihydroxypropyl)-1,4-diazepan-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-hydroxyacetamide;

3-amino-N-(1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-cyclopropylpyridin-2-yl)azetidin-3-yl)oxetane-3-carboxamide;

2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(2-fluorophenyl)acetamide;

2-((3,5-dicyano-6-((S)-3-(cyclopropylamino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)-N-(3-hydroxy-2,2-dimethylpropyl)acetamide;

N-(2-(4H-1,2,4-triazol-4-yl)ethyl)-2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)acetamide;

N1-(2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl)oxalamide;

2-((6-(3-(aminomethyl)-3-fluoroazetidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((R)-3-hydroxy-3-(hydroxymethyl)pyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((S)-3-((2,2-difluoroethyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-((R)-3-aminopiperidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((6-(4-aminopiperidin-1-yl)-3,5-dicyano-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-((S)-4-hydroxyisoxazolidin-2-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((3-hydroxypropyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-6-((S)-3-hydroxypyrrolidin-1-yl)-4-methoxypyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(3-methoxyazetidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-dicyano-4-ethyl-6-(4-(3-methoxyazetidin-1-yl)piperidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((2-hydroxyethyl)(methyl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide;

(R)-2-((6-((R)-3-(aminomethyl)-3-hydroxypyrrolidin-1-yl)-3,5-dicyano-4-ethylpyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-6-(4-(cyclobutyl(methyl)amino)piperidin-1-yl)-4-ethylpyridin-2-yl)thio)-2-(4-fluorophenyl)acetamide; and

2-((3,5-dicyano-4-ethyl-6-(methyl(1-methylpyrrolidin-3-yl)amino)pyridin-2-yl)thio)-2-phenylacetamide;

or a pharmaceutically acceptable salt or prodrug thereof.

9. A pharmaceutical composition comprising a compound according to any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable excipient.

10. A compound according to and as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof for use in the treatment of a disease selected from: cancer, pre-cancerous syndromes, beta haemoglobinopathy disorders, sickle cell disease, sickle cell anemia, and beta thalassemia.

11. Use of a compound according to and as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of a disease selected from: cancer, pre-cancerous syndromes, beta haemoglobinopathy disordes, sickle cell disease, sickle cell anemia, and beta thalassemia.

12. The use according to claim 11 wherein said cancer is selected from: brain (gliomas), glioblastomas, astrocytomas, glioblastoma multiforme, Bannayan-Zonana syndrome, Cowden disease, Lhermitte-Duclos disease, breast, colon, head and neck, kidney, lung, liver, melanoma, ovarian, pancreatic, adenocarcinoma, ductal adenocarcinoma, adenosquamous carcinoma, acinar cell carcinoma, glucagonoma, insulinoma, prostate, sarcoma and thyroid.

13. Use of a compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for use in the treatment or lessening the severity of cancer.

14. A compound according to any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof for use in the inhibition of DNMT1 activity in a mammal in need thereof.

15. Use of a compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be administered with at least one anti-neoplastic agent.

16. The method claim 15, wherein the at least one anti-neoplastic agent is selected from the group consisting of: anti-microtubule agents, platinum coordination complexes, alkylating agents, antibiotic agents, topoisomerase II inhibitors, antimetabolites, topoisomerase I inhibitors, hormones and hormonal analogues, signal transduction pathway inhibitors, non-receptor tyrosine kinase angiogenesis, inhibitors, immunotherapeutic agents, proapoptotic agents, cell cycle signaling inhibitors, proteasome inhibitors, inhibitors of cancer metabolism, anti-PD-L1 agents, PD-1 antagonist, immuno-modulators, STING modulating compounds, CD39 inhibitors, A2a and A2a adenosine antagonists, TLR4 antagonists, antibodies to ICOS, and antibodies to OX40.

17. A pharmaceutical combination comprising:

a) a compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof; and

b) at least one anti-neoplastic agent.

18. A pharmaceutical combination as claimed in claim 17 for use in the treatment of cancer.

19. The use according to claim 11 wherein said cancer is selected from: breast cancer, inflammatory breast cancer, ductal carcinoma, lobular carcinoma, colon cancer, pancreatic cancer, insulinomas, adenocarcinoma, ductal adenocarcinoma, adenosquamous carcinoma, acinar cell carcinoma, glucagonoma, skin cancer, melanoma, metastatic melanoma, lung cancer, small cell lung cancer, non-small cell lung cancer, squamous cell carcinoma, adenocarcinoma, large cell carcinoma, brain (gliomas), glioblastomas, astrocytomas, glioblastoma multiforme, Bannayan-Zonana syndrome, Cowden disease, Lhermitte-Duclos disease, Wilm's tumor, Ewing's sarcoma, Rhabdomyosarcoma, ependymoma, medulloblastoma, head and neck, kidney, liver, melanoma, ovarian, pancreatic, adenocarcinoma, ductal adenocarcinoma, adenosquamous carcinoma, acinar cell carcinoma, glucagonoma, insulinoma, prostate, sarcoma, osteosarcoma, giant cell tumor of bone, thyroid,

lymphoblastic T cell leukemia, chronic myelogenous leukemia, chronic lymphocytic leukemia, hairy-cell leukemia, acute lymphoblastic leukemia, acute myelogenous leukemia, chronic neutrophilic leukemia, acute lymphoblastic T cell leukemia, plasmacytoma, Immunoblastic large cell leukemia, mantle cell leukemia, multiple myeloma, megakaryoblastic leukemia, multiple myeloma, acute megakaryocytic leukemia, promyelocytic leukemia, erythroleukemia,

malignant lymphoma, hodgkins lymphoma, non-hodgkins lymphoma, lymphoblastic T cell lymphoma, Burkitt’s lymphoma, follicular lymphoma,

neuroblastoma, bladder cancer, urothelial cancer, vulval cancer, cervical cancer, endometrial cancer, renal cancer, mesothelioma, esophageal cancer, salivary gland cancer, hepatocellular

cancer, gastric cancer, nasopharangeal cancer, buccal cancer, cancer of the mouth, GIST (gastrointestinal stromal tumor), neuroendocrine cancers and testicular cancer.

20. A process for preparing a pharmaceutical composition containing a pharmaceutically acceptable excipient and a compound of Formula (IVbbr), (Vbbr), (VIbbr), or (Qb) as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof, which process comprises bringing the compound of Formula (IVbbr), (Vbbr), (VIbbr), or (Qb) or a pharmaceutically acceptable salt thereof into association with a pharmaceutically acceptable excipient.

21. The use according to claim 11 wherein said pre-cancerous syndrome is selected from: cervical intraepithelial neoplasia, monoclonal gammapathy of unknown significance (MGUS), myelodysplastic syndrome, aplastic anemia, cervical lesions, skin nevi (pre-melanoma), prostatic intraepithleial (intraductal) neoplasia (PIN), Ductal Carcinoma in situ (DCIS), colon polyps and severe hepatitis or cirrhosis.

22. A pharmaceutical combination comprising:

a) a compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof; and

b) at least one agent useful for treating beta haemoglobinopathies.

23. A pharmaceutical combination as claimed in claim 22 for use in the treatment of sickle cell disease.

24. A pharmaceutical combination as claimed in claim 22 for use in the treatment of sickle cell anemia.

25. A pharmaceutical combination as claimed in claim 22 for use in the treatment of beta-thalassemia.

26. A compound of claim 1 wherein the compound is selected from:

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

1-(6-((2-amino-1-(4-fluorophenyl)-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl dihydrogen phosphate;

(2S)-2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl 2-amino-3-methylbutanoate;

2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl dihydrogen phosphate; and

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl dihydrogen phosphate;

or a pharmaceutically acceptable salt thereof.

27. A prodrug of a compound of claim 8 selected from:

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

1-(6-((2-amino-1-(4-fluorophenyl)-2-oxoethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

2-((6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)(methyl)amino)ethyl dihydrogen phosphate;

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)azetidin-3-yl dihydrogen phosphate;

(2S)-2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl 2-amino-3-methylbutanoate;

2-((1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl)oxy)ethyl dihydrogen phosphate; and

1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)piperidin-4-yl dihydrogen phosphate;

or a pharmaceutically acceptable salt thereof.

28. A compound according to claim 1 for use in the treatment of a disease selected from: cancer, pre-cancerous syndromes, beta haemoglobinopathy disorders, sickle cell disease, sickle cell anemia, and beta thalassemia wherein the compound is: 2-((3,5-dicyano-4-(furan-2-yl)-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

or a pharmaceutically acceptable salt or prodrug thereof.

29. The compound of claim 4 which is: 2-((3,5-dicyano-4-(furan-2-yl)-6-(4-methyl-1,4-diazepan-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

or a pharmaceutically acceptable salt or prodrug thereof.

30. A compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof for use in the treatment of a disease selected from: diabetic nephropathy, diabetes, podocyte injury, atherosclerosis, psoriasis, idiopathic pulmonary fibrosis, scleroderma, liver cirrhosis, rheumatoid arthritis, and Alzheimer's disease.

31. Use of a compound as described in any one of claims 4 to 8 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of a disease selected from: diabetic nephropathy, diabetes, podocyte injury, atherosclerosis, psoriasis, idiopathic pulmonary fibrosis, scleroderma, liver cirrhosis, rheumatoid arthritis, and Alzheimer's disease.

32. A pharmaceutical composition comprising from 0.5 to 1,000 mg of a compound or pharmaceutically acceptable salt thereof as defined in claim 1 or 4, and from 0.5 to 1,000 mg of a pharmaceutically acceptable excipient.

33. A prodrug of a compound of claim 8 selected from:

1-(6-((2-Amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(3R)-1-(6-((2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate;

(S)-1-(6-(((S)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl)pyrrolidin-3-yl dihydrogen phosphate; and

(S)-1-(6-(((R)-2-amino-2-oxo-1-phenylethyl)thio)-3,5-dicyano-4-ethylpyridin-2-yl) pyrrolidin-3-yl dihydrogen phosphate;

or a pharmaceutically acceptable salt thereof.

34. A compound of claim 4 selected from:

2-((3,5-Dicyano-4-ethyl-6-(3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

(R)-2-((3,5-Dicyano-4-ethyl-6-((R)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide; and

(S)-2-((3,5-Dicyano-4-ethyl-6-((S)-3-hydroxypyrrolidin-1-yl)pyridin-2-yl)thio)-2-phenylacetamide;

or a pharmaceutically acceptable salt thereof.

35. A compound according to claim 4 or a pharmaceutically acceptable salt or prodrug thereof for use in the treatment of brain cancer (gliomas), glioblastomas, astrocytomas, glioblastoma multiforme, Bannayan-Zonana syndrome, Cowden disease, Lhermitte-Duclos disease, breast, colon, head and neck, kidney, lung, liver, melanoma, ovarian, pancreatic, adenocarcinoma, ductal adenocarcinoma, adenosquamous carcinoma, acinar cell carcinoma, glucagonoma, insulinoma, prostate, sarcoma and thyroid

36. A compound according to claim 8 or a pharmaceutically acceptable salt or prodrug thereof for use in the treatment of brain cancer (gliomas), glioblastomas, astrocytomas, glioblastoma multiforme, Bannayan-Zonana syndrome, Cowden disease, Lhermitte-Duclos disease, breast, colon, head and neck, kidney, lung, liver, melanoma, ovarian, pancreatic, adenocarcinoma, ductal adenocarcinoma, adenosquamous carcinoma, acinar cell carcinoma, glucagonoma, insulinoma, prostate, sarcoma and thyroid.