

Claims

1. A compound or a pharmaceutically acceptable salt thereof, selected from
 - 2-Cyano-N-((1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)methyl)ethanesulfonamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-(pyrimidin-4-ylmethyl)acetamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-(3-hydroxy-2,2-dimethylpropyl)acetamide;
 - N-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)acetamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-(((1*S*,3*R*,5*R*,7*S*)-3-hydroxyadamantan-1-yl)methyl)acetamide;
 - N-(2-Cyano-2-methylpropyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)acetamide;
 - N-(4-Cyanobicyclo[2.2.1]heptan-1-yl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)acetamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-((3-hydroxyoxetan-3-yl)methyl)acetamide;
 - 2-((1*r*,4*r*)-4-(2-(2-(4-Morpholinopiperidin-1-yl)-2-oxoethyl)imidazo[4,5-d]pyrrolo[2,3-b]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-((1*r*,4*r*)-4-(hydroxymethyl)cyclohexyl)acetamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-(2-hydroxyethyl)acetamide;
 - N-((1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)methyl)benzimidamide;
 - 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-d]pyrrolo[2,3-b]pyridin-2-yl)-N-((1-hydroxycyclobutyl)methyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(pyrazin-2-ylmethyl)acetamide;

N-((1*H*-imidazol-2-yl)methyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*R*,3*R*)-3-hydroxycyclobutyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1-methyl-1*H*-pyrazol-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*S*,4*S*)-4-hydroxycyclohexyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*s*,3*r*,5*R*,7*S*)-3-hydroxyadamantan-1-yl)acetamide;

N-(4-(Cyanomethyl)bicyclo[2.2.1]heptan-1-yl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(3-hydroxy-3-methylbutyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1-isobutylpiperidin-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1*H*-pyrazol-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-(hydroxymethyl)benzyl)acetamide;

2-((1*r*,4*r*)-4-(2-(2-(4-(Hydroxymethyl)piperidin-1-yl)-2-oxoethyl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1*H*-pyrazol-3-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1-hydroxycyclopropyl)methyl)acetamide;

2-((1*r*,4*r*)-4-(2-(2-(4-(2-Hydroxypropan-2-yl)piperidin-1-yl)-2-oxoethyl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-(1,1,1,3,3,3-hexafluoro-2-hydroxypropan-2-yl)phenyl)acetamide;
 N-((1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)-3-hydroxy-3-methylbutanamide;
 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-methoxyethyl)acetamide;
 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-8-fluoro-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;
 2-((1*r*,4*r*)-4-(2-(1-(Methylsulfonyl)azetidin-3-yl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;
 3-Cyano-N-((1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)propanamide;
 3-(3-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)azetidin-1-yl)-3-oxopropanenitrile;
 2-((1*r*,4*r*)-4-(2-(1-(2-Hydroxy-2-methylpropyl)piperidin-4-yl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;
 2-(8-chloro-1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;
 2-(8-bromo-1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;
 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-methylacetamide; and
 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-cyanophenyl)acetamide.

2. A compound selected from

2-Cyano-N-((1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)ethanesulfonamide;
 2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(pyrimidin-4-ylmethyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(3-hydroxy-2,2-dimethylpropyl)acetamide;

N-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(((1*S*,3*R*,5*R*,7*S*)-3-hydroxyadamantan-1-yl)methyl)acetamide;

N-(2-Cyano-2-methylpropyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

N-(4-Cyanobicyclo[2.2.1]heptan-1-yl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((3-hydroxyoxetan-3-yl)methyl)acetamide;

2-((1*r*,4*r*)-4-(2-(2-(4-Morpholinopiperidin-1-yl)-2-oxoethyl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*r*,4*r*)-4-(hydroxymethyl)cyclohexyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxyethyl)acetamide;

N-((1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)benzimidamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1-hydroxycyclobutyl)methyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(pyrazin-2-ylmethyl)acetamide;

N-((1*H*-imidazol-2-yl)methyl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*R*,3*R*)-3-hydroxycyclobutyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1-methyl-1*H*-pyrazol-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*S*,4*S*)-4-hydroxycyclohexyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1*s*,3*r*,5*R*,7*S*)-3-hydroxyadamantan-1-yl)acetamide;

N-(4-(Cyanomethyl)bicyclo[2.2.1]heptan-1-yl)-2-(1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(3-hydroxy-3-methylbutyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1-isobutylpiperidin-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1*H*-pyrazol-4-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-(hydroxymethyl)benzyl)acetamide;

2-((1*r*,4*r*)-4-(2-(2-(4-(Hydroxymethyl)piperidin-1-yl)-2-oxoethyl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(1*H*-pyrazol-3-yl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-((1-hydroxycyclopropyl)methyl)acetamide;

2-((1*r*,4*r*)-4-(2-(2-(4-(2-Hydroxypropan-2-yl)piperidin-1-yl)-2-oxoethyl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-(1,1,1,3,3,3-hexafluoro-2-hydroxypropan-2-yl)phenyl)acetamide;

N-(((1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)-3-hydroxy-3-methylbutanamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-methoxyethyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-8-fluoro-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;

2-((1*r*,4*r*)-4-(2-(1-(Methylsulfonyl)azetidin-3-yl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

3-Cyano-N-((1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)methyl)propanamide;

3-(3-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)azetidin-1-yl)-3-oxopropanenitrile;

2-((1*r*,4*r*)-4-(2-(1-(2-Hydroxy-2-methylpropyl)piperidin-4-yl)imidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-1(6*H*)-yl)cyclohexyl)acetonitrile;

2-(8-chloro-1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;

2-(8-bromo-1-((1*r*,4*r*)-4-(cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(2-hydroxy-2-methylpropyl)acetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-methylacetamide;

2-(1-((1*r*,4*r*)-4-(Cyanomethyl)cyclohexyl)-1,6-dihydroimidazo[4,5-*d*]pyrrolo[2,3-*b*]pyridin-2-yl)-N-(4-cyanophenyl)acetamide; and

pharmaceutically acceptable co-crystals thereof.