

Claims

We claim:

1. A compound selected from:

- 5 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-ethyl-pyrimidin-4-ylamine (1);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-chloro-pyrimidin-4-ylamine (2);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropyl-pyrimidin-4-ylamine (3);
- 10 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropyl-pyrimidin-4-ylamine (4);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-trifluoromethyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropyl-pyrimidin-4-ylamine (5);
- 5-Chloro-6-{4-[4-(4-fluoro-3-methyl-phenyl)-1-(1-methyl-azetidin-3-ylmethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (6);
- 15 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-(2H-pyrazol-3-yl)-pyrimidin-4-ylamine (7);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-pyridin-4-yl-pyrimidin-4-ylamine (8);
- 20 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-pyridin-3-yl-pyrimidin-4-ylamine (9);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-ethoxy-pyrimidin-4-ylamine (10);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-cyclobutyl-pyrimidin-4-ylamine (11);
- 25 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropoxy-pyrimidin-4-ylamine (12);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-pyridin-4-yl-pyrimidin-4-ylamine (13);
- 30 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-(2,2,2-trifluoro-ethoxy)-pyrimidin-4-ylamine (14);
- 4-Amino-6-{4-[1-(2-azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidine-5-carbaldehyde (15);
- 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-cyclopropyl-pyrimidin-4-ylamine (16);
- 35

6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-cyclopropyl-pyrimidin-4-ylamine (17);

6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-phenyl-pyrimidin-4-ylamine (18);

5 6-{4-[1-(2-Azetidin-1-yl-ethyl)-4-(2-isopropyl-pyridin-4-yl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-pyridin-3-yl-pyrimidin-4-ylamine (19);

5-Ethoxy-6-{4-(3-chloro-4-fluorophenyl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (20);

5-Bromo-6-{4-(3-methyl-4-fluorophenyl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (21);

10 5-Chloro-6-{4-(3-methyl-4-fluorophenyl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (22);

5-Chloro-6-{4-(3-trifluoromethyl-4-fluorophenyl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (23);

15 5-Chloro-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (24);

5-Bromo-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (25);

5-Ethoxy-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (26);

20 5-Ethyl-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (27);

5-Isopropoxy-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-4-ylamine (28);

25 4-amino-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-5-carbonitrile (29);

4-amino-6-{4-(3-trifluoromethyl-pyridin-4-yl)-1-2-(dimethylamino-1-yl-ethyl)-1H-imidazol-2-yl]-piperidin-1-yl}-pyrimidin-5-carboxamide (30);

6-{4-[1-(2-Ethylamino-ethyl)-4-(4-fluoro-3-trifluoromethyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropyl-pyrimidin-4-ylamine (31); and

30 6-{4-[1-[2-(3-Chloro-propylamino)-ethyl]-4-(4-fluoro-3-methyl-phenyl)-1H-imidazol-2-yl]-piperidin-1-yl}-5-isopropyl-pyrimidin-4-ylamine (32);

and pharmaceutically acceptable salts, solvates, or solvates of salts thereof.

2. A pharmaceutical composition comprising a compound of claim 1, or a pharmaceutically acceptable salt, solvate or prodrug thereof, as active ingredient, together with a pharmaceutically acceptable carrier.

3. The pharmaceutical composition according to claim 2 for the use in the treatment of cancer selected from the group consisting of brain, lung, colon, epidermoid, squamous cell, bladder, gastric, pancreatic, breast, head, neck, renal, kidney, liver, ovarian, prostate, colorectal, uterine, rectal, oesophageal, testicular, gynecological, thyroid cancer, melanoma, hematologic malignancies such as acute myelogenous leukemia, multiple myeloma, chronic myelogenous leukemia, myeloid cell leukemia, glioma and Kaposi's sarcoma.

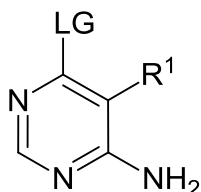
4. A kit consisting of separate packs of

a) an effective amount of a compound of claim 1 or a pharmaceutically acceptable salt, solvate or prodrug thereof, and

b) an effective amount of a further medicament active ingredient.

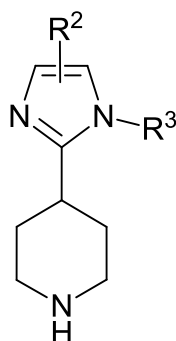
5. A process for the preparation of the compounds of claim 1 and pharmaceutically usable salts, tautomers and stereoisomers thereof, comprising:

reacting a compound of formula (A), wherein, LG is a leaving group:



(A);

under basic conditions with compound of formula (B):



(B);

to yield the compound of the formula (I)

