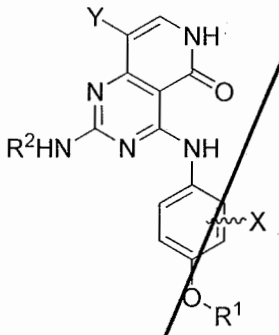
CLAIMS

1. A compound represented by Formula (I):



Formula (I)

wherein:

R^1 is aryl, arylalkyl, C_5-C_6cycloalkyl or C_5-C_6cycloalkyl methyl optionally substituted with R^3;

R^3 is independently fluoro, chloro, bromo, iodo, C_1-C_6alkyl, or CF_3;

X is H, F, Cl, Br, I, CH_3, or CF_3;

Y is chloro, bromo, iodo, $-C_1$-C_3alkyl or phenyl;

R^2 is C_4-C_7heterocycloalkyl, wherein the C_4-C_7heterocycloalkyl has 1 or 2 nitrogen atoms in the C_4-C_7heterocycloalkyl ring, and is substituted at nitrogen with R^5;

and

R^5 is C_1-C_3alkyl or $C(O)C_1$-C_3alkyl, wherein the C_1-C_3alkyl group is optionally substituted with 1-3 fluorine atoms;

or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1, wherein R^1 represents phenyl, benzyl, cyclohexyl, cyclopentyl, cyclohexyl methyl, or cyclopentyl methyl optionally substituted with R^3.

3. The compound of claim 1, wherein R^2 represents piperidine substituted at nitrogen with R^5.

4. The compound of claim 1, where R^5 is methyl, ethyl, trifluoroethyl, or iso-propyl.

5. The compound of claim 4, wherein the compound is 8-bromo-2-((1-methylpiperidin-4-yl)amino)-4-((4-phenoxyphenyl)amino)pyrido[4,3-d]pyrimidin-5(6H)-one, 8-bromo-4-((4-(3-fluorophenoxy)phenyl)amino)-2-((1-methylpiperidin-4-yl)amino) pyrido[4,3-d]pyrimidin-5(6H)-one, or 8-bromo-4-((3-(3-fluorophenoxy) phenyl)amino)-2-((1-methylpiperidin-4-yl)amino)pyrido[4,3-d]pyrimidin-5(6H)-one.

6. The compound of claim 1, wherein Y represents bromo.

7. The compound of claim 1, wherein X represents H, fluorine or methyl.

8. The compound of claim 7, wherein the compound is 8-bromo-4-((3-fluoro-4-phenoxyphenyl)amino)-2-((1-methylpiperidin-4-yl)amino) pyrido[4,3-d]pyrimidin-5(6H)-one hydrochloride.

9. A stereoisomeric compound of claim 1.

10. A pharmaceutical formulation comprising a compound or a pharmaceutically acceptable salt thereof of claim 1 in combination with a pharmaceutically acceptable carrier, diluent or excipient.

11. A method of inhibiting FLT3 activity in a cell, the method comprising contacting the cell with an effective amount of a compound or a pharmaceutically acceptable salt thereof of claim 1, such that FLT3 activity is inhibited.

12. A method for the treatment of a hematological malignancy, wherein the hematological malignancy is selected from the group consisting of acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), chronic lymphocytic leukemia (CLL), chronic myeloid leukemia (CML), and myeloproliferative disorders (MPD), the method comprising administering to a subject in need thereof an effective amount of a compound or a pharmaceutically acceptable salt thereof of claim 1.

13. The method of claim 12, wherein said compound is administered singly or in combination with one or more additional therapeutic agents.

14. The method of claim 12, wherein said compound is administered via intravenous administration, subcutaneous administration, inhalation, oral administration, rectal administration, parenteral, intravitreal administration, intramuscular administration, intranasal administration, dermal administration, topical administration, optic administration, ophthalmic administration, buccal administration, tracheal administration, bronchial administration, or sublingual administration.

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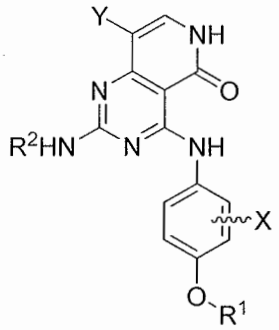

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Y is chloro, bromo, iodo, $-C_1$-C_3alkyl or phenyl;

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5. The compound of claim 1, wherein the compound is 8-bromo-2-((1-methylpiperidin-4-yl)amino)-4-((4-phenoxyphenyl)amino)pyrido[4,3-d]pyrimidin-5(6H)-one, 8-bromo-4-((4-(3-fluorophenoxy)phenyl)amino)-2-((1-methylpiperidin-4-yl)amino) pyrido[4,3-d]pyrimidin-5(6H)-one, or 8-bromo-4-((3-(3-fluorophenoxy) phenyl)amino)-2-((1-methylpiperidin-4-yl)amino)pyrido[4,3-d]pyrimidin-5(6H)-one.

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8. The compound of claim 7, wherein the compound is 8-bromo-4-((3-fluoro-4-phenoxyphenyl)amino)-2-((1-methylpiperidin-4-yl)amino) pyrido[4,3-d]pyrimidin-5(6H)-one hydrochloride.

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