

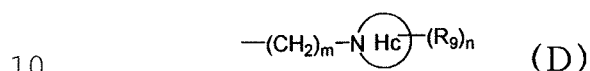


wherein one arm is connected to an adjacent amino group (NH) and the other arm is connected to a substituent $-(\text{CH}_2)_1-$, and a substituent R_2 is present on the ring.

5 In this specification, the monovalent moiety represented by [0054]



of the group represented by Formula (D) [0053]



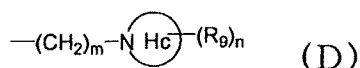
(wherein R_9 , m , and n are as defined above)

[0055]

refers to a C_3 - C_{10} heterocycloalkyl group containing at least one nitrogen atom in the ring and further containing 0 to 2 same or
15 different heteroatoms selected from oxygen and sulfur atoms in the ring (a nitrogen-containing C_3 - C_{10} heterocycloalkylene group), and is preferably a C_3 - C_5 heterocycloalkylene group containing 1 to 3 nitrogen atoms in the ring and further containing 0 to 1 oxygen atom in the ring (a nitrogen-containing C_3 - C_5
20 heterocycloalkylene group). Specific examples thereof include azetidinylene, pyrrolidinylene, piperidinylene, piperazinylene, morpholinylene, octahydroquinolinylene, octahydroindolinylene, and the like. Azetidinylene, pyrrolidinylene, piperidinylene, piperazinylene, and morpholinylene are preferable.

25 Formula (D)

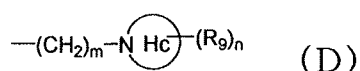
[0056]



denotes a nitrogen-containing C_3 - C_{10} heterocycloalkylene group represented by

30 [0057]





is pyrrolidinyl, piperidinyl, azetidinyl, piperazinyl, or morpholinyl; R_7 is hydrogen, hydroxymethyl, methyl, or 2-hydroxy-2-methyl-ethyl; R_8 is $-N(R_x)(R_y)$; R_9 is methyl, fluorine, or hydroxy and; R_x and R_y are the same or different, and each represents hydrogen, methyl, ethyl, *tert*-butyl, isopropyl, cyclopropyl, cyclobutyl, or 2-methoxyethyl; and m is 1, and n is 0 or 1.

[0098]

Specific examples of preferable compounds of the present invention include the following:

- (1) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one (Compound of Example 2),
- (2) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-yn-1-one (Compound of Example 5),
- (3) (S)-1-(3-(4-amino-3-((3,5-diethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one (Compound of Example 8),
- (4) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)prop-2-en-1-one (Compound of Example 9),
- (5) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-hydroxybut-2-en-1-one (Compound of Example 10),
- (6) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(dimethylamino)but-2-en-1-one (Compound of Example 12),
- (7) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(cyclopropylamino)but-2-en-1-one (Compound of Example 13),
- (8) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-

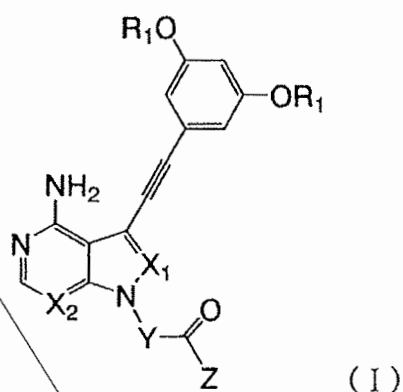
- (32) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(isopropylamino)but-2-en-1-one (Compound of Example 57),
- (33) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(diethylamino)but-2-en-1-one (Compound of Example 59),
- (34) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-((2-methoxyethyl)(methyl)amino)but-2-en-1-one (Compound of Example 60),
- (35) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(4-hydroxypiperidin-1-yl)but-2-en-1-one (Compound of Example 61),
- (36) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one (Compound of Example 62),
- (37) (R)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one (Compound of Example 63),
- (38) (2S,4S)-methyl 1-acryloyl-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidine-2-carboxylate (Compound of Example 66),
- (39) 1-((2S,4S)-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)-2-(1,3,4-oxadiazol-2-yl)pyrrolidin-1-yl)prop-2-en-1-one (Compound of Example 68), and
- (40) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrrolo[3,2-c]pyridin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one (Compound of Example 73).

[0099]

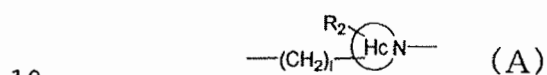
Next, the method for producing the compound according to the present invention will be explained. Compound (I) of the present invention can be produced, for example, by the following production methods or by the methods described in Examples. However, the method for producing Compound (I) of the present invention is not limited to these reaction examples.

CLAIMS

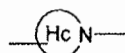
[Claim 1] A compound represented by Formula (I)



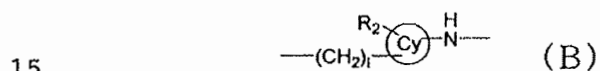
5 or a salt thereof,
 wherein R_1 is the same or different, and each represents C_1 - C_6 alkyl;
 X_1 and X_2 independently represent N or CH;
 Y is a group represented by Formula (A)



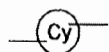
wherein the divalent moiety represented by



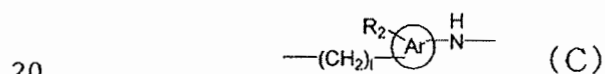
is a nitrogen-containing C_3 - C_{10} heterocycloalkylene group,
 a group represented by Formula (B)



wherein the divalent moiety represented by



is a C_3 - C_{10} cycloalkylene group, or
 a group represented by Formula (C)



wherein the divalent moiety represented by



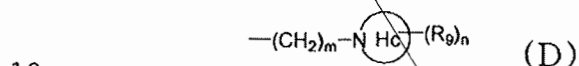
is a C₆-C₁₂ arylene group;

R₂ is hydrogen, C₂-C₆ alkynyl, -C(=O)OR_x, -C(=O)N(R_x)(R_y), hydroxy-C₁-C₆ alkyl, di(C₁-C₆ alkyl)amino-C₁-C₆ alkyl, or C₂-C₉ heteroaryl optionally having R₃; and

5 R₃ is C₁-C₆ alkyl or di(C₁-C₆ alkyl)amino-C₁-C₆ alkyl;

Z is -C(R₄)=C(R₅)(R₆) or -C≡C-R₇;

R₄, R₅, and R₆ are the same or different, and each represents hydrogen, halogen, C₁-C₆ alkyl optionally having R₈, or a group represented by Formula (D)



wherein the monovalent moiety represented by



is a nitrogen-containing C₃-C₁₀ heterocycloalkyl group,

R₇ is hydrogen, C₁-C₆ alkyl, or hydroxy-C₁-C₆ alkyl;

15 R₈ is -OR_x or -N(R_x)(R_y);

R₉ is C₁-C₆ alkyl, halogen, or -OR_x;

R_x and R_y are the same or different, and each represents hydrogen, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, di(C₁-C₆ alkyl)amino-C₁-C₆ alkyl, or C₁-C₆ alkoxy-C₁-C₆ alkyl;

20 l is an integer of 0 to 3;

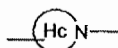
m is an integer of 1 to 3; and

n is an integer of 0 to 2.

[Claim 2] The compound or a salt thereof according to claim 1 wherein in Formula (I), (1) when X₂ is N, X₁ is N or CH, and
25 (2) when X₂ is CH, X₁ is CH.

[Claim 3] The compound or a salt thereof according to claim 1 or 2 wherein in Formula (I), l is 0 or 1.

[Claim 4] The compound or a salt thereof according to any one of claims 1 to 3 wherein in Formula (I), (1) when Y is a group
30 represented by Formula (A), the group represented by

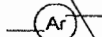


is azetidinylene, pyrrolidinylene, piperidinylene,

piperazinylene, or morpholinylene, and (2) when Y is a group represented by Formula (B), the group represented by



is cyclopropylene or cyclobutylene, and (3) when Y is a group represented by Formula (C), the group represented by



is phenylene.

[Claim 5] The compound or a salt thereof according to any one of claims 1 to 4 wherein in Formula (I), (1) when Y is a group represented by Formula (A), Z is $-C(R_4)=C(R_5)(R_6)$ or $C\equiv C-R_7$, and (2) when Y is a group represented by Formula (B) or (C), Z is $C(R_4)=C(R_5)(R_6)$.

[Claim 6] The compound or a salt thereof according to any one of claims 1 to 5 wherein in Formula (I), R_1 is methyl or ethyl.

[Claim 7] The compound or a salt thereof according to any one of claims 1 to 6 wherein in Formula (I), R_2 is C_2-C_6 alkynyl, $-C(=O)OR_x$, hydroxy- C_1-C_4 alkyl, or C_2-C_9 heteroaryl optionally having R_3 .

[Claim 8] The compound or a salt thereof according to any one of claims 1 to 7 wherein the compound is selected from the following group of compounds:

(1) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one,

(2) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-yn-1-one,

(3) (S)-1-(3-(4-amino-3-((3,5-diethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one,

(4) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)prop-2-en-1-one,

(5) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-hydroxybut-2-en-1-one,

(6) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-

- (dimethylamino)but-2-en-1-one,
- (7) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(cyclopropylamino)but-2-en-1-one,
- 5 (8) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(isopropylamino)but-2-en-1-one,
- (9) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-
- 10 (ethyl(methyl)amino)but-2-en-1-one,
- (10) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(cyclobutylamino)but-2-en-1-one,
- (11) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-
- 15 (diethylamino)but-2-en-1-one,
- (12) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(tert-butylamino)but-2-en-1-one,
- 20 (13) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(isopropyl(methyl)amino)but-2-en-1-one,
- (14) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(piperidin-1-
- 25 yl)but-2-en-1-one,
- (15) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(3-fluoropyrrolidin-1-yl)but-2-en-1-one,
- (16) (R)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(3-
- 30 fluoropyrrolidin-1-yl)but-2-en-1-one,
- (17) 1-((2S,4S)-4-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)-2-(hydroxymethyl)pyrrolidin-1-yl)prop-2-en-1-one,
- 35 (18) 1-(2S,4S)-4-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-

- 1H-pyrazolo[3,4-d]pyrimidin-1-yl)-2-ethynylpyrrolidin-1-yl)prop-2-en-1-one,
- (19) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(dimethylamino)but-2-en-1-one,
- 5 (20) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)prop-2-en-1-one,
- (21) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(pyrrolidin-10 1-yl)but-2-en-1-one,
- (22) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(4-hydroxypiperidin-1-yl)but-2-en-1-one,
- (23) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)but-2-yn-1-one,
- 15 (24) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-hydroxy-4-methylpent-2-yn-1-one,
- (25) 1-((S)-3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-((S)-3-fluoropyrrolidin-1-yl)but-2-en-1-one,
- 20 (26) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(piperidin-1-yl)but-2-en-1-one,
- 25 (27) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)prop-2-en-1-one,
- (28) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(dimethylamino)but-2-en-1-one,
- 30 (29) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(pyrrolidin-1-yl)but-2-en-1-one,
- (30) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(azetidin-1-35 yl)but-2-en-1-one,

- (31) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(ethyl(methyl)amino)but-2-en-1-one,
- 5 (32) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(isopropylamino)but-2-en-1-one,
- (33) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(diethylamino)but-2-en-1-one,
- 10 (34) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-((2-methoxyethyl)(methyl)amino)but-2-en-1-one,
- (35) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(4-hydroxypiperidin-1-yl)but-2-en-1-one,
- 15 (36) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one,
- (37) (R)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one,
- 20 (38) (2S,4S)-methyl-1-acryloyl-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidine-2-carboxylate,
- 25 (39) 1-((2S,4S)-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)-2-(1,3,4-oxadiazol-2-yl)pyrrolidin-1-yl)prop-2-en-1-one, and
- (40) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrrolo[3,2-c]pyridin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one.
- 30 [Claim 9] An FGFR inhibitor comprising the compound or a salt thereof according to any one of claims 1 to 8 as an active ingredient.
- [Claim 10] A pharmaceutical composition comprising the compound or a salt thereof according to any one of claims 1 to 8, and
- 35 a pharmacologically acceptable carrier.

[Claim 11] An antitumor agent comprising the compound or a salt thereof according to any one of claims 1 to 8 as an active ingredient.

5 [Claim 12] A method for treating a tumor comprising administering an effective amount of the compound or a salt thereof according to any one of claims 1 to 8 to a patient in need of such a treatment.

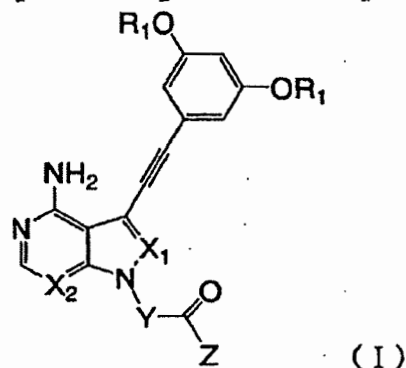
[Claim 13] The compound or a salt thereof according to any one of claims 1 to 8 for use in the treatment of a tumor.

10 [Claim 14] Use of the compound or a salt thereof according to any one of claims 1 to 8 in the treatment of a tumor.

[Claim 15] Use of the compound or a salt thereof according to any one of claims 1 to 8 in the manufacture of an antitumor agent.

CLAIMS

[Claim 1] A compound represented by Formula (I)

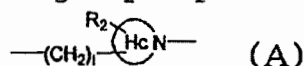


or a salt thereof,

wherein R_1 is the same or different, and each represents C_1 - C_6 alkyl;

X_1 and X_2 independently represent N or CH;

Y is a group represented by Formula (A)

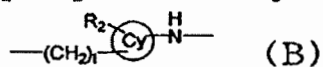


wherein the divalent moiety represented by

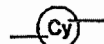


is a nitrogen-containing C_3 - C_{10} heterocycloalkylene group,

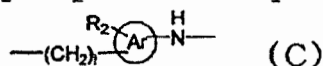
a group represented by Formula (B)



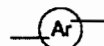
wherein the divalent moiety represented by



is a C_3 - C_{10} cycloalkylene group, or
a group represented by Formula (C)



wherein the divalent moiety represented by



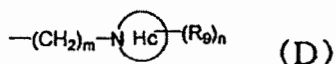
is a C_6 - C_{12} arylene group;

R_2 is hydrogen, C_2 - C_6 alkynyl, $-C(=O)OR_x$, $-C(=O)N(R_x)(R_y)$, hydroxy- C_1 - C_6 alkyl, di(C_1 - C_6 alkyl)amino- C_1 - C_6 alkyl, or C_2 - C_9 heteroaryl optionally having R_3 ; and

R_3 is C_1 - C_6 alkyl or di(C_1 - C_6 alkyl)amino- C_1 - C_6 alkyl;

Z is $-C(R_4)=C(R_5)(R_6)$ or $-C\equiv C-R_7$;

R_4 , R_5 , and R_6 are the same or different, and each represents hydrogen, halogen, C_1 - C_6 alkyl optionally having R_8 , or a group represented by Formula (D)



wherein the monovalent moiety represented by



is a nitrogen-containing C₃-C₁₀ heterocycloalkyl group,
 R₇ is hydrogen, C₁-C₆ alkyl, or hydroxy-C₁-C₆ alkyl;
 R₈ is -OR_x or -N(R_x)(R_y);
 R₉ is C₁-C₆ alkyl, halogen, or -OR_x;
 R_x and R_y are the same or different, and each represents
 hydrogen, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, di(C₁-C₆
 alkyl)amino-C₁-C₆ alkyl, or C₁-C₆ alkoxy-C₁-C₆ alkyl;
 l is an integer of 0 to 3;
 m is an integer of 1 to 3; and
 n is an integer of 0 to 2.

[Claim 2] The compound or a salt thereof according to claim 1
 wherein in Formula (I), (1) when X₂ is N, X₁ is N or CH,
 and (2) when X₂ is CH, X₁ is CH.

[Claim 3] The compound or a salt thereof according to claim 1
 or 2 wherein in Formula (I), l is 0 or 1.

[Claim 4] The compound or a salt thereof according to any one
 of claims 1 to 3 wherein in Formula (I), (1) when Y is a
 group represented by Formula (A), the group represented by



is azetidinylene, pyrrolidinylene, piperidinylene,
 piperazinylene, or morpholinylene, and (2) when Y is a
 group represented by Formula (B), the group represented by



is cyclopropylene or cyclobutylene, and (3) when Y is a
 group represented by Formula (C), the group represented by



is phenylene.

[Claim 5] The compound or a salt thereof according to any one
 of claims 1 to 4 wherein in Formula (I), (1) when Y is a
 group represented by Formula (A), Z is -C(R₄)=C(R₅)(R₆) or
 C≡C-R₇, and (2) when Y is a group represented by Formula
 (B) or (C), Z is C(R₄)=C(R₅)(R₆).

[Claim 6] The compound or a salt thereof according to any one
 of claims 1 to 5 wherein in Formula (I), R₁ is methyl or
 ethyl.

[Claim 7] The compound or a salt thereof according to any one
 of claims 1 to 6 wherein in Formula (I), R₂ is C₂-C₆
 alkynyl, -C(=O)OR_x, hydroxy-C₁-C₄ alkyl, or C₂-C₉ heteroaryl
 optionally having R₃.

[Claim 8] The compound or a salt thereof according to any one of claims 1 to 7 wherein the compound is selected from the following group of compounds:

- (1) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one,
- (2) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-yn-1-one,
- (3) (S)-1-(3-(4-amino-3-((3,5-diethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one,
- (4) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)prop-2-en-1-one,
- (5) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-hydroxybut-2-yn-1-one,
- (6) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(dimethylamino)but-2-en-1-one,
- (7) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(cyclopropylamino)but-2-en-1-one,
- (8) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(isopropylamino)but-2-en-1-one,
- (9) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(ethyl(methyl)amino)but-2-en-1-one,
- (10) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(cyclobutylamino)but-2-en-1-one,
- (11) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(diethylamino)but-2-en-1-one,
- (12) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(tert-butylamino)but-2-en-1-one,
- (13) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(isopropyl(methyl)amino)but-2-en-1-one,
- (14) 1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(piperidin-1-yl)but-2-en-1-one,
- (15) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(3-fluoropyrrolidin-1-yl)but-2-en-1-one,
- (16) (R)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)azetidin-1-yl)-4-(3-fluoropyrrolidin-1-yl)but-2-en-1-one,
- (17) 1-((2S,4S)-4-(4-amino-3-((3,5-

- dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)-2-(hydroxymethyl)pyrrolidin-1-yl)prop-2-en-1-one,
- (18) 1-(2S,4S)-4-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrazolo[3,4-d]pyrimidin-1-yl)-2-ethynylpyrrolidin-1-yl)prop-2-en-1-one,
- (19) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(dimethylamino)but-2-en-1-one,
- (20) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)prop-2-en-1-one,
- (21) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(pyrrolidin-1-yl)but-2-en-1-one,
- (22) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(4-hydroxypiperidin-1-yl)but-2-en-1-one,
- (23) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)but-2-yn-1-one,
- (24) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-hydroxy-4-methylpent-2-yn-1-one,
- (25) 1-((S)-3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-((S)-3-fluoropyrrolidin-1-yl)but-2-en-1-one,
- (26) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidin-1-yl)-4-(piperidin-1-yl)but-2-en-1-one,
- (27) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)prop-2-en-1-one,
- (28) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(dimethylamino)but-2-en-1-one,
- (29) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(pyrrolidin-1-yl)but-2-en-1-one,
- (30) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(azetidin-1-yl)but-2-en-1-one,
- (31) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(ethyl(methyl)amino)but-2-en-1-one,
- (32) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(isopropylamino)but-2-en-1-one,
- (33) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(diethylamino)but-2-en-1-one,
- (34) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-((2-

methoxyethyl) (methyl) amino) but-2-en-1-one,
(35) 1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(4-hydroxypiperidin-1-yl)but-2-en-1-one,
(36) (S)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one,
(37) (R)-1-(3-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)azetidin-1-yl)-4-(3-hydroxypyrrolidin-1-yl)but-2-en-1-one,
(38) (2S,4S)-methyl 1-acryloyl-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)pyrrolidine-2-carboxylate,
(39) 1-((2S,4S)-4-(4-amino-5-((3,5-dimethoxyphenyl)ethynyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl)-2-(1,3,4-oxadiazol-2-yl)pyrrolidin-1-yl)prop-2-en-1-one,
and
(40) (S)-1-(3-(4-amino-3-((3,5-dimethoxyphenyl)ethynyl)-1H-pyrrolo[3,2-c]pyridin-1-yl)pyrrolidin-1-yl)prop-2-en-1-one.

[Claim 9] An FGFR inhibitor comprising the compound or a salt thereof according to any one of claims 1 to 8 as an active ingredient.

[Claim 10] A pharmaceutical composition comprising the compound or a salt thereof according to any one of claims 1 to 8, and a pharmacologically acceptable carrier.

[Claim 11] An antitumor agent comprising the compound or a salt thereof according to any one of claims 1 to 8 as an active ingredient.

[Claim 12] The compound or a salt thereof according to any one of claims 1 to 8 for use in the treatment of a tumor.

[Claim 13] Use of the compound or a salt thereof according to any one of claims 1 to 8 in the manufacture of an antitumor agent.