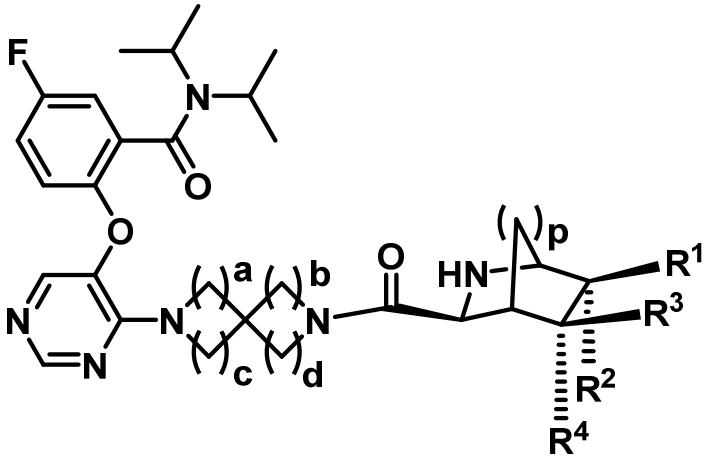
CLAIMS

1. A compound of formula (1a):



(1a)

or a pharmaceutically acceptable salt thereof, wherein

p is 1 or 2;

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, halogen atom, $-OR^7$, or $-M-Q$; or R^1 and R^2 and/or R^3 and R^4 may be combined to form each independently =O or $=CR^{12A}R^{13A}$;

M is, each independently if there are plural, C_{1-6} alkylene (which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, –

$NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{2-6} alkenylene, C_{2-6} alkynylene, C_{3-10} cycloalkylene, 3- to 10-membered saturated heterocyclyl, C_{6-10} arylene, or 5- to 12-membered heteroarylene, wherein the alkenylene, the alkynylene, the cycloalkylene, the saturated heterocyclyl, the arylene, and the heteroarylene may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

Q is, each independently if there are plural, hydrogen atom, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 5 the same or different substituents selected from the

group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

R^7 is, each independently if there are plural, hydrogen atom, C_{1-6} alkyl (which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, phenyl, 5- to 6-membered heteroaryl, C_{2-4} alkynyl, C_{3-7} cycloalkyl, 3- to 7-membered saturated heterocyclyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the alkenyl, the alkynyl, the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 5 the same or different substituents

selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

R^{12A} and R^{13A} are each independently hydrogen atom, halogen atom, C_{1-6} alkyl (which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the alkenyl, the alkynyl, the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3}

alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano, and if there are plural R^{12A} or R^{13A}, each R^{12A} or R^{13A} may be the same or different, or when R^{12A} and R^{13A} are both C_{1-6} alkyl, they may be combined with the carbon atom to which they are attached to form 3- to 8-membered saturated carbocycle;

R^{35A} is, each independently if there are plural, C_{1-6} alkyl;

R^{36A} and R^{37A} are each independently hydrogen atom or C_{1-6} alkyl, and if there are plural R^{36A} or R^{37A}, each R^{36A} or R^{37A} may be the same or different, or when R^{36A} and R^{37A} are both C_{1-6} alkyl, they may be combined with the nitrogen atom to which they are attached to form 3- to 6-membered nitrogen-containing saturated heterocycle; and

a, b, c, and d are each independently 1 or 2.

2. The compound of claim 1 or a pharmaceutically acceptable salt thereof, wherein

M is, each independently if there are plural, C_{1-6} alkylene, which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, hydroxy, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano.

3. The compound of claim 1 or 2 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of

fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano.

4. The compound of any one of claims 1 to 3 or a pharmaceutically acceptable salt thereof, wherein

R^7 is, each independently if there are plural, hydrogen atom, C_{1-6} alkyl (which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, phenyl, C_{3-7} cycloalkyl, and 3- to 7-membered saturated heterocyclyl), C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl (wherein the cycloalkyl and the saturated heterocyclyl may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom and C_{1-3} alkyl), C_{6-10} aryl, or 5- to 12-membered heteroaryl (wherein the aryl and the

heteroaryl may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, and C_{1-3} alkyl).

5. The compound of any one of claims 1 to 4 or a pharmaceutically acceptable salt thereof, wherein

R^7 is, each independently if there are plural, hydrogen atom, C_{1-6} alkyl, or C_{2-6} alkenyl, wherein the alkyl and the alkenyl may be substituted with one phenyl.

6. The compound of any one of claims 1 to 5 or a pharmaceutically acceptable salt thereof, wherein

R^{12A} and R^{13A} are each independently hydrogen atom, C_{1-6} alkyl (which may be substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{2-4}

alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 5 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano, and if there are plural R^{12A} or R^{13A}, each R^{12A} or R^{13A} may be the same or different, or when R^{12A} and R^{13A} are both C_{1-6} alkyl, they may be combined with the carbon atom to which they are each attached to form 3- to 8-membered saturated carbocycle.

7. The compound of any one of claims 1 to 6 or a pharmaceutically acceptable salt thereof, wherein

p is 1 or 2;

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, halogen atom, $-OR^7$, or $-M-Q$; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form each independently =O or $=CR^{12A}R^{13A}$;

M is, each independently if there are plural, C_{1-6} alkylene, which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, hydroxy, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

Q is, each independently if there are plural, C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 3 the same or different substituents selected from the group consisting of

fluorine atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

R^7 is, each independently if there are plural, hydrogen atom, C_{1-6} alkyl, or C_{2-6} alkenyl, wherein the alkyl and the alkenyl may be substituted with one phenyl;

R^{12A} and R^{13A} are each independently hydrogen atom, C_{1-6} alkyl (which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, hydroxy, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{3-10} cycloalkyl, 3- to 10-membered saturated heterocyclyl, C_{6-10} aryl, or 5- to 12-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the aryl, and the heteroaryl may be each independently substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine

atom, chlorine atom, bromine atom, hydroxy, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{37A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{37A}R^{37A}$, and cyano, and if there are plural R^{12A} or R^{13A}, each R^{12A} or R^{13A} are the same or different, or when R^{12A} and R^{13A} are both C_{1-6} alkyl, they may be combined with the carbon atom to which they are attached to form 3- to 8-membered saturated carbocycle;

R^{35A} is, each independently if there are plural, C_{1-6} alkyl;

R^{36A} and R^{37A} are each independently hydrogen atom or C_{1-6} alkyl, and if there are plural R^{36A} or R^{37A}, each R^{36A} or R^{37A} may be the same or different, or when R^{36A} and R^{37A} are both C_{1-6} alkyl, they may be combined with the nitrogen atom to which they are attached to form 3- to 6-membered nitrogen-containing saturated heterocycle; and

a, b, c, and d are each independently 1 or 2.

8. The compound of any one of claims 1 to 7 or a pharmaceutically acceptable salt thereof, wherein

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, fluorine atom, or –M–Q; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form each independently =O or $=CR^{12A}R^{13A}$.

9. The compound of any one of claims 1 to 8 or a pharmaceutically acceptable salt thereof, wherein

M is, each independently if there are plural, C_{1-3} alkylene, which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{2-4} alkynyl, C_{1-3} alkoxy, $-NR^{36A}R^{37A}$, and cyano.

10. The compound of any one of claims 1 to 9 or a pharmaceutically acceptable salt thereof, wherein

M is, each independently if there are plural, C_{1-3} alkylene.

11. The compound of any one of Claims 1 to 10 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-6} cycloalkyl, 3- to 6-membered saturated heterocyclyl, phenyl, or 5- to 6-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the phenyl, and the heteroaryl may be each independently substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, chlorine atom, bromine atom, C_{1-3} alkyl, C_{2-4} alkynyl, C_{1-3} alkoxy, $-CONR^{36A}R^{37A}$, $-NR^{36A}R^{37A}$, $-NR^{36A}COR^{35A}$, $-NR^{36A}SO_2R^{35A}$, $-SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano.

12. The compound of any one of claims 1 to 11 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-6} cycloalkyl, 3- to 6-membered saturated heterocyclyl, phenyl,

or 5- to 6-membered heteroaryl, wherein the cycloalkyl, the saturated heterocyclyl, the phenyl, and the heteroaryl may be each independently substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano.

13. The compound of any one of claims 1 to 12 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-6} cycloalkyl which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano.

14. The compound of any one of claims 1 to 13 or a pharmaceutically acceptable salt thereof, wherein

R^{12A} and R^{13A} are each independently hydrogen atom, C_{1-6} alkyl (which may be substituted with 1 to 3 the same or

different substituents selected from the group consisting of fluorine atom, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), C_{3-10} cycloalkyl (which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano), and if there are plural R^{12A} or R^{13A}, each R^{12A} or R^{13A} may be the same or different, or when R^{12A} and R^{13A} are both C_{1-3} alkyl, they may be combined with the carbon atom to which they are attached to form 3- to 6-membered saturated carbocycle.

15. The compound of any one of claims 1 to 14 or a pharmaceutically acceptable salt thereof, wherein

R^{12A} and R^{13A} are each independently hydrogen atom, or C_{3-6} cycloalkyl which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and

cyano, and if there are plural R^{12A} and R^{13A}, each R^{12A} and R^{13A} may be the same or different.

16. The compound of any one of claims 1 to 15 or a pharmaceutically acceptable salt thereof, wherein

a and c are 1; and

both b and d are either 1 or 2.

17. The compound of any one of claims 1 to 16 or a pharmaceutically acceptable salt thereof, wherein

p is 1 or 2;

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, fluorine atom, or –M–Q; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form each independently =O or $=CR^{12A}R^{13A}$;

M is, each independently if there are plural, C_{1-3} alkylene;

Q is, each independently if there are plural, C_{3-6} cycloalkyl which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano;

R^{12A} and R^{13A} are each independently hydrogen atom, C_{3-6} cycloalkyl which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom, C_{1-3} alkyl, $-NR^{36A}SO_2R^{35A}$, $-SO_2NR^{36A}R^{37A}$, and cyano, and if there are plural R^{12A} or R^{13A}, each R^{12A} or R^{13A} may be the same or different;

R^{35A} is, each independently if there are plural, C_{1-6} alkyl;

R^{36A} and R^{37A} are each independently hydrogen atom or C_{1-6} alkyl, and if there are plural R^{36A} or R^{37A}, each R^{36A} or R^{37A} may be the same or different, or when R^{36A} and R^{37A} are both C_{1-6} alkyl, they may be combined with the nitrogen atom to

which they are attached to form 3- to 6-membered nitrogen-containing saturated heterocycle;

a and c are 1; and

both b and d are either 1 or 2.

18. The compound of any one of claims 1 to 17 or a pharmaceutically acceptable salt thereof, wherein

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, fluorine atom, or -M-Q; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form each independently $=CR^{12A}R^{13A}$.

19. The compound of any one of claims 1 to 18 or a pharmaceutically acceptable salt thereof, wherein

M is methylene.

20. The compound of any of claims 1 to 19 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-6} cycloalkyl which may be substituted with 1 to 3 the same or different substituents selected from the group consisting of fluorine atom and C_{1-3} alkyl.

21. The compound of any one of claims 1 to 20 or a pharmaceutically acceptable salt thereof, wherein

Q is, each independently if there are plural, C_{3-6} cycloalkyl.

22. The compound of any one of claims 1 to 21 or a pharmaceutically acceptable salt thereof, wherein

R^{12A} and R^{13A} are each independently hydrogen atom or C_{3-6} cycloalkyl.

23. The compound of any one of claims 1 to 22 or a pharmaceutically acceptable salt thereof, wherein

R^{12A} and R^{13A} are hydrogen atom.

24. The compound of any one of claims 1 to 23 or a pharmaceutically acceptable salt thereof, wherein

p is 1 or 2;

R^1, R^2, R^3, and R^4 are each independently hydrogen atom, fluorine atom, or –M–Q; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form $=CH_2$;

M is, each independently if there are plural, methylene;

Q is, each independently if there are plural, C_{3-6} cycloalkyl;

a and c are 1; and

both b and d are either 1 or 2.

25. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are hydrogen atom; and

R^3 and R^4 are each independently hydrogen atom or fluorine atom;

provided that both R^3 and R^4 are not hydrogen atom.

26. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are each independently hydrogen atom or –M–Q; and

R^3 and R^4 are each independently hydrogen atom or fluorine atom;

provided that both R^1 and R^2 are not hydrogen atom.

27. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 is hydrogen atom;

R^2 is –M–Q;

R^3 is hydrogen atom; and

R^4 is hydrogen atom or fluorine atom.

28. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 is –M–Q;

R^2 is hydrogen atom;

R^3 is hydrogen atom or fluorine atom; and

R^4 is hydrogen atom.

29. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1, R^2, R^3, and R^4 are each independently hydrogen atom; or R^1 and R^2 and/or R^3 and R^4 may be combined together to form $=CH_2$;

provided that all of R^1, R^2, R^3, and R^4 are not hydrogen atom.

30. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are combined together to form $=CH_2$; and

R^3 and R^4 are hydrogen atom.

31. The compound of any one of claims 1 to 24 or a pharmaceutically acceptable salt thereof, wherein

R^1 and R^2 are hydrogen atom; and

R^3 and R^4 are combined together to form $=CH_2$.

32. The compound of any one of claims 1 to 31 or a pharmaceutically acceptable salt thereof, wherein

a, b, c, and d are 1.

33. The compound of any one of claims 1 to 31 or a pharmaceutically acceptable salt thereof, wherein

a and c are 1; and

b and d are 2.

34. The compound of any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof, wherein

p is 1.

35. The compound of any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof, wherein

p is 2.

36. The compound of claim 1 or a pharmaceutically acceptable salt thereof, selected from:

2-[(4-{7-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{6-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-

diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4R)-6-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{6-[(1S,3S,4R)-6-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{6-[(1S,3S,4S,5S)-5-fluoro-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1R,3S,4R)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4S)-5-oxo-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1S,3S,4S,5S,6S)-6-(cyclopropylmethyl)-5-fluoro-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1R,3S,4S)-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1R,3S,4S)-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1S,3S,4S,5R,6R)-6-(cyclopropylmethyl)-5-fluoro-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide; and

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-($^2H_2$)methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide.

37. The compound of claim 1 or a pharmaceutically acceptable salt thereof, selected from:

2-[(4-{7-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-

diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide; and

2-[(4-{6-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide.

38. The compound of claim 1, or a hydrochloride, L(+)-tartrate, or succinate thereof, selected from:

2-[(4-{7-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1S,3S,4R,6S)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide; and

2-[(4-{6-[(1S,3S,4R,6R)-6-(cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide.

39. The compound of claim 1 or a pharmaceutically acceptable salt thereof, selected from:

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{6-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

2-[(4-{6-[(1R,3S,4S)-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

2-[(4-{7-[(1R,3S,4S)-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide; and

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-($^2H_2$)methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide.

40. The compound of claim 1, or a hydrochloride, L(+)-tartrate, or succinate, selected from:

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{6-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide,

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide; and

5-fluoro-2-[(4-{7-[(1S,3S,4R)-5-($^2H_2$)methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide.

41. 2-[(4-{7-[(1S,3S,4R,6S)-6-(Cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

42. 2-[(4-{6-[(1S,3S,4R,6S)-6-(Cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

43. 2-[(4-{7-[(1S,3S,4R,6R)-6-(Cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

44. 2-[(4-{6-[(1S,3S,4R,6R)-6-(Cyclopropylmethyl)-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-5-fluoro-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

45. 5-Fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

46. 5-Fluoro-2-[(4-{6-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,6-diazaspiro[3.3]heptan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

47. 5-Fluoro-2-[(4-{7-[(1S,3S,4R)-5-methylidene-2-azabicyclo[2.2.1]heptane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate, or succinate thereof.

48. 5-Fluoro-2-[(4-{7-[(1S,3S,4R)-5-($^2H_2$)methylidene-2-azabicyclo[2.2.2]octane-3-carbonyl]-2,7-diazaspiro[3.5]nonan-2-yl}pyrimidin-5-yl)oxy]-N,N-di(propan-2-yl)benzamide, or a hydrochloride, L(+)-tartrate or succinate thereof.

49. A medicament comprising the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof as an active ingredient.

50. An antitumor medicament comprising the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof as an active ingredient.

51. The antitumor medicament of claim 50, wherein the tumor is acute leukemia (including MLL acute leukemia, MLL partial tandem duplicate acute leukemia, NPM mutated acute leukemia, MOZ acute leukemia, NUP98 acute leukemia, and CALM acute leukemia), chronic lymphocytic leukemia, chronic myeloid leukemia, myelodysplastic syndrome, polycythemia vera, malignant lymphoma (including B-cell lymphoma), myeloma (including multiple myeloma), brain tumor, cancer of the head and neck, esophageal cancer, thyroid cancer, small cell lung

cancer, non-small cell lung cancer, breast cancer, gastric cancer, gallbladder and bile duct cancer, liver cancer, hepatocellular cancer, pancreatic cancer, colon cancer, rectal cancer, anal cancer, chorionepithelioma, endometrial cancer, cervical cancer, ovarian cancer, bladder cancer, urothelial cancer, renal cancer, renal cell cancer, prostate cancer, testicular tumor, testicular germ cell tumor, ovarian germ cell tumor, Wilms' tumor, malignant melanoma, neuroblastoma, osteosarcoma, Ewing's sarcoma, chondrosarcoma, soft tissue sarcoma, or skin cancer.

52. The antitumor medicament of claim 50 or 51, wherein the tumor is acute leukemia (including MLL acute leukemia, MLL partial tandem duplicate acute leukemia, NPM mutated acute leukemia, MOZ acute leukemia, NUP98 acute leukemia, and CALM acute leukemia), chronic myeloid leukemia, malignant lymphoma (including B-cell lymphoma), myeloma (including

multiple myeloma), brain tumor, prostate cancer, breast cancer, neuroblastoma, Ewing's sarcoma, or liver cancer.

53. The antitumor medicament of any one of claims 50 to 52, wherein the tumor is MLL acute leukemia, MLL partial tandem duplicate acute leukemia, NPM mutated acute leukemia, MOZ acute leukemia, NUP98 acute leukemia, CALM acute leukemia, chronic myeloid leukemia, B-cell lymphoma, multiple myeloma, neuroblastoma, or prostate cancer.

54. The antitumor medicament of any one of claims 50 to 53, wherein the tumor is MLL acute leukemia, MLL partial tandem duplicate acute leukemia, NPM mutated acute leukemia, MOZ acute leukemia, NUP98 acute leukemia, CALM acute leukemia, chronic myeloid leukemia, B-cell lymphoma, or multiple myeloma.

55. The antitumor medicament of any one of claims 50 to 54, wherein the tumor is MLL acute leukemia, or NPM mutated acute leukemia.

56. The antitumor medicament of any one of claims 50 to 55, wherein the tumor is accompanied by high expression of HOXa gene cluster, or MEIS gene cluster.

57. The antitumor medicament of any one of claims 50 to 56, wherein the tumor is accompanied by p53 gain-of-function mutation.

58. Use of the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof in the manufacture of a medicamenet for treating a tumor.

59. The use of claim 58, wherein the tumor is involved in Menin-MLL.

60. Use of the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof in the manufacture of an antitumor medicament.

61. The compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof for use in the treatment of a tumor.

62. A pharmaceutical composition comprising the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof in combination with at least one different agent or a pharmaceutically acceptable salts thereof, wherein the different agent is at least one agent selected from the group consisting of an antitumor alkylating agent, an antitumor

antimetabolite, an antitumor antibiotic, a plant-derived antitumor medicament, an antitumor platinum complex compound, an antitumor camptothecin derivative, an antitumor tyrosine kinase inhibitor, an antitumor serine/threonine kinase inhibitor, an antitumor phospholipid kinase inhibitor, an antitumor monoclonal antibody, interferon, an biological response modifier, a hormone preparation, an angiogenic inhibitor, an immune checkpoint inhibitor, an epigenetics-associated molecular inhibitor, a protein post-translational modification inhibitor, a proteasome inhibitor, and other antitumor medicaments.

63. The compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof in combination with at least one different agent or a pharmaceutically acceptable salt thereof for use in treating a tumor, wherein the different agent is at least one agent selected from an

antitumor alkylating agent, an antitumor antimetabolite, an antitumor antibiotic, a plant-derived antitumor medicament, an antitumor platinum complex compound, an antitumor camptothecin derivative, an antitumor tyrosine kinase inhibitor, an antitumor serine/threonine kinase inhibitor, an antitumor phospholipid kinase inhibitor, an antitumor monoclonal antibody, interferon, a biological response modifier, a hormone preparation, an angiogenic inhibitor, an immune checkpoint inhibitor, an epigenetics-associated molecular inhibitor, a protein post-translational modification inhibitor, a proteasome inhibitor, and other antitumor medicaments.

64. Use of the compound of any one of claims 1 to 48 or a pharmaceutically acceptable salt thereof in combination with at least one different agent or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating

a tumor, wherein the different agent is at least one agent selected from an antitumor alkylating agent, an antitumor antimetabolite, an antitumor antibiotic, a plant-derived antitumor medicament, an antitumor platinum complex compound, an antitumor camptothecin derivative, an antitumor tyrosine kinase inhibitor, an antitumor serine/threonine kinase inhibitor, an antitumor phospholipid kinase inhibitor, an antitumor monoclonal antibody, interferon, a biological response modifier, a hormone preparation, an angiogenic inhibitor, an immune checkpoint inhibitor, an epigenetics-associated molecular inhibitor, a protein post-translational modification inhibitor, a proteasome inhibitor, and other antitumor medicaments.