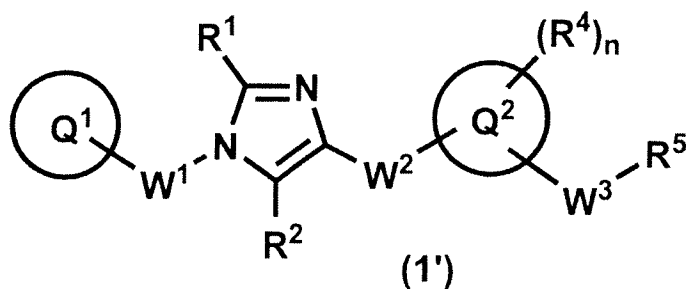


CLAIMS

1. A compound of formula (1'):



5 or a pharmaceutically acceptable salt thereof, wherein ring Q^1 is optionally-substituted C_{6-10} aryl group, optionally-substituted C_{3-10} cycloalkyl group, or optionally-substituted 5- to 10-membered heteroaryl group;

10 R^1 and R^2 are independently hydrogen atom, halogen atom, or C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

W^1 is optionally-substituted C_{1-4} alkylene group;

15 W^2-Q^2 is $-NR^{3a}C(O)-Q^2$, $-NR^{3a}C(O)O-Q^2$, $-NR^{3a}C(O)OCH_2-Q^2$, $-NR^{3a}C(O)NR^{3b}-Q^2$, $-NR^{3a}C(O)NR^{3b}CH_2-Q^2$, $-NR^{3a}C(O)CH_2O-Q^2$, $-NR^{3a}C(O)CH_2-Q^2$, $-NR^{3a}C(O)CH_2CH_2-Q^2$, $-C(O)NR^{3a}-Q^2$, $-C(O)NR^{3a}CH_2-Q^2$, $-C(O)NR^{3a}CH_2CH_2-Q^2$, or $-NR^{3a}C(O)-CR^{3c}=CR^{3d}-Q^2$ wherein R^{3a} and R^{3b} are independently hydrogen atom or C_{1-6} alkyl group; and R^{3c} and R^{3d} are independently hydrogen atom, fluorine atom, or C_{1-6} alkyl group;

20

ring Q^2 is 5- to 10-membered heteroaryl group;

W^3 is optionally-substituted C_{1-4} alkylene group, optionally-substituted C_{3-4} alkenylene group, or optionally-substituted C_{3-4} alkynylene group;

n is 1, 2, 3, 4, or 5;

5 R^4 is, independently when two or more exist, hydrogen atom, halogen atom, optionally-substituted C_{1-6} alkyl group, optionally-substituted C_{1-6} alkoxy group, optionally-substituted C_{3-10} cycloalkyl group, optionally-substituted C_{2-6} alkenyl group, optionally-substituted C_{2-6} alkynyl group,
 10 cyano group, optionally-substituted C_{1-6} alkyl-carbonyl group, optionally-substituted C_{1-6} alkylsulfonyl group, optionally-substituted C_{1-6} alkoxy-carbonyl group, optionally-substituted C_{1-6} alkyl-carbonylamino group, optionally-substituted C_{1-6} alkylsulfonylamino group,
 15 optionally-substituted C_{1-6} alkoxy-carbonylamino group, optionally-substituted C_{1-6} alkyl-carbonyloxy group, optionally-substituted amino group, optionally-substituted aminocarbonyl group, optionally-substituted aminosulfonyl group, optionally-substituted 5- or 6-membered cyclic amino
 20 group, optionally-substituted 5- or 6-membered cyclic aminocarbonyl group, nitro group, or carboxyl group;

when R^4 and W^3 are attached to the adjacent carbon atoms on ring Q^2 , they may be combined with the carbon atoms to form 5- to 8-membered cycloalkane ring; and

25 R^5 is

(1) hydroxy group,

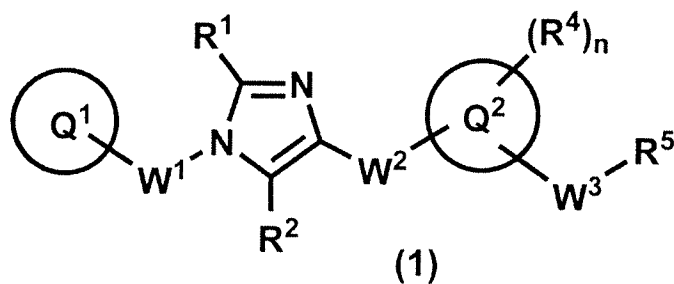
(2) C₁₋₆ alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy,

5 C₁₋₆ alkoxy, and C₆₋₁₀ aryl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

(3) amino group which may be optionally substituted with
10 the same or different 1 to 2 C₁₋₆ alkyl groups, or

(4) C₁₋₆ alkyl-carbonylamino group wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 halogen atoms.

15 2. A compound of formula (1):



or a pharmaceutically acceptable salt thereof, wherein ring Q¹ is optionally-substituted C₆₋₁₀ aryl group, optionally-substituted C₃₋₁₀ cycloalkyl group, or optionally-substituted 5- to 10-membered heteroaryl group;

R¹ and R² are independently hydrogen atom, halogen

atom, or C₁₋₆ alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

W¹ is optionally-substituted C₁₋₄ alkylene group;

5 W²-Q² is -NR^{3a}C(O)-Q², -NR^{3a}C(O)O-Q², -NR^{3a}C(O)OCH₂-Q², -NR^{3a}C(O)NR^{3b}-Q², -NR^{3a}C(O)NR^{3b}CH₂-Q², -NR^{3a}C(O)CH₂O-Q², -NR^{3a}C(O)CH₂-Q², -NR^{3a}C(O)CH₂CH₂-Q², -C(O)NR^{3a}-Q², -C(O)NR^{3a}CH₂-Q², or -C(O)NR^{3a}CH₂CH₂-Q² wherein R^{3a} and R^{3b} are independently hydrogen atom or C₁₋₆ alkyl group;

10 ring Q² is 5- to 10-membered heteroaryl group;

W³ is optionally-substituted C₁₋₄ alkylene group, optionally-substituted C₃₋₄ alkenylene group, or optionally-substituted C₃₋₄ alkynylene group;

n is 1, 2, 3, 4, or 5;

15 R⁴ is, independently when two or more exist, hydrogen atom, halogen atom, optionally-substituted C₁₋₆ alkyl group, optionally-substituted C₁₋₆ alkoxy group, optionally-substituted C₃₋₁₀ cycloalkyl group, optionally-substituted C₂₋₆ alkenyl group, optionally-substituted C₂₋₆ alkynyl group,
20 cyano group, or optionally-substituted amino group;

when R⁴ and W³ are attached to the adjacent carbon atoms on ring Q², they may be combined with the carbon atoms to form 5- to 8-membered cycloalkane ring; and

R⁵ is

25 (1) hydroxy group,

(2) C₁₋₆ alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, C₁₋₆ alkoxy, and C₆₋₁₀ aryl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

(3) amino group which may be optionally substituted with the same or different 1 to 2 C₁₋₆ alkyl groups, or

(4) C₁₋₆ alkyl-carbonylamino group wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 halogen atoms.

3. The compound according to claim 1 or 2 or a pharmaceutically acceptable salt thereof wherein ring Q¹ is

(1) C₆₋₁₀ aryl group which may be optionally substituted with the same or different 1 to 5 groups independently selected from the group consisting of

(a) halogen atom,

(b) C₁₋₆ alkyl which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(c) C₁₋₆ alkoxy which may be optionally substituted with the same or different 1 to 3 groups independently selected

from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(d) cyano,

5 (e) C₆₋₁₀ aryl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

10 (f) 5- or 6-membered heteroaryl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

15 (g) C₆₋₁₀ aryloxy which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

(h) hydroxy,

(i) amino which may be optionally substituted with the same or different 1 to 2 C₁₋₆ alkyl groups,

20 (j) aminocarbonyl wherein the amino moiety thereof may be optionally substituted with the same or different 1 to 2 C₁₋₆ alkyl groups,

25 (k) C₁₋₆ alkoxy-carbonyl wherein the alkoxy moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(l) C₁₋₆ alkyl-carbonyl wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

5 (m) C₁₋₆ alkylsulfonyl wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

10 (n) C₁₋₆ alkyl-carbonylamino wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

15 (o) C₁₋₆ alkylsulfonylamino wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

20 (p) C₁₋₆ alkoxy-carbonylamino wherein the alkoxy moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(q) C₁₋₆ alkyl-carbonyloxy wherein the alkyl moiety thereof may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

25 (r) aminosulfonyl wherein the amino moiety thereof may be

optionally substituted with the same or different 1 to 2
C₁₋₆ alkyl groups, and

(s) C₃₋₁₀ cycloalkyl which may be optionally substituted
with the same or different 1 to 4 groups independently
5 selected from the group consisting of halogen atom, hydroxy,
and C₁₋₆ alkoxy,

(2) C₃₋₁₀ cycloalkyl group which may be optionally
substituted with the same or different 1 to 5 groups
independently selected from the group consisting of (a) to
10 (s) defined in the above item (1), or

(3) 5- to 10-membered heteroaryl group which may be
optionally substituted with the same or different 1 to 5
groups independently selected from the group consisting of
(a) to (s) defined in the above item (1);

15 W¹ is C₁₋₄ alkylene group which may be optionally
substituted with the same or different 1 to 4 groups
independently selected from the group consisting of halogen
atom, hydroxy, and C₁₋₆ alkoxy;

W³ is

20 (1) C₁₋₄ alkylene group which may be optionally substituted
with the same or different 1 to 4 groups independently
selected from the group consisting of halogen atom, hydroxy,
and C₁₋₆ alkoxy,

(2) C₃₋₄ alkenylene group which may be optionally
25 substituted with the same or different 1 to 2 halogen atoms,

or

(3) C₃₋₄ alkynylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms;

5 R⁴ is, independently when two or more exist,

(1) hydrogen atom,

(2) halogen atom,

(3) C₁₋₆ alkyl group which may be optionally substituted with the same or different 1 to 3 groups independently
10 selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(4) C₁₋₆ alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently
15 selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(5) C₃₋₁₀ cycloalkyl group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

20 (6) C₂₋₆ alkenyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms,

(7) C₂₋₆ alkynyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms,

(8) cyano group, or

25 (9) amino group which may be optionally substituted with

the same or different 1 to 2 C₁₋₆ alkyl groups; and

when R⁴ and W³ are attached to the adjacent carbon atoms on ring Q², they may be combined with the carbon atoms to form 5- to 8-membered cycloalkane ring.

5

4. The compound according to any one of claims 1 to 3 or a pharmaceutically acceptable salt thereof wherein ring Q¹ is

(1) phenyl group which may be optionally substituted with the same or different 1 to 5 groups independently selected from the group consisting of

(a) halogen atom,
(b) C₁₋₆ alkyl which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(c) C₁₋₆ alkoxy which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(d) cyano,

(e) phenyl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

25

(f) 5- or 6-membered heteroaryl which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy, and

5 (g) phenoxy which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, C₁₋₆ alkyl, and C₁₋₆ alkoxy,

(2) C₃₋₇ cycloalkyl group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of (a) to (g) defined in the above (1), or

(3) pyridyl group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of (a) to (g) defined in the above (1).

5. The compound according to any one of claims 1 to 4 or a pharmaceutically acceptable salt thereof wherein ring Q¹ is phenyl group which may be optionally substituted with the same or different 1 to 5 groups independently selected from the group consisting of

(a) halogen atom,

(b) C₁₋₆ alkyl which may be optionally substituted with the same or different 1 to 3 halogen atoms, and

(c) C₁₋₆ alkoxy which may be optionally substituted with the same or different 1 to 3 halogen atoms.

6. The compound according to any one of claims 1 to 5 or
5 a pharmaceutically acceptable salt thereof wherein W¹ is methylene group which may be optionally substituted with 1 to 2 halogen atoms, or ethylene group which may be optionally substituted with 1 to 4 halogen atoms.

10 7. The compound according to any one of claims 1 to 6 or a pharmaceutically acceptable salt thereof wherein W²-Q² is -NR^{3a}C(O)-Q², -NR^{3a}C(O)CH₂O-Q², or -C(O)NR^{3a}-Q² wherein R^{3a} is hydrogen atom or C₁₋₆ alkyl group.

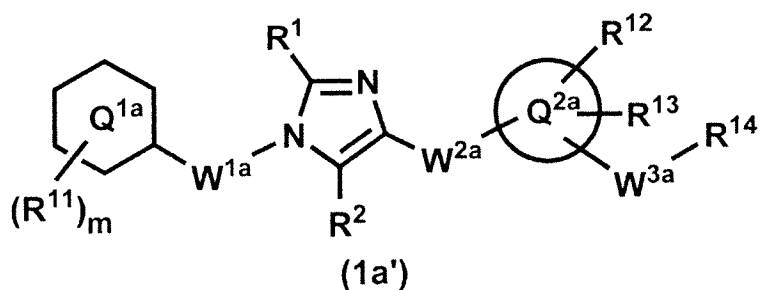
15 8. The compound according to any one of claims 1 to 7 or a pharmaceutically acceptable salt thereof wherein W²-Q² is -NHC(O)-Q² or -C(O)NH-Q².

20 9. The compound according to any one of claims 1 to 8 or a pharmaceutically acceptable salt thereof wherein ring Q² is pyridyl group, pyrimidyl group, pyridazyl group, pyrazyl group, oxazolyl group, thiazolyl group, isoxazolyl group, isothiazolyl group, quinolinyl group, isoquinolinyl group, quinazolinyl group, or quinoxalinyl group.

10. The compound according to any one of claims 1 to 9 or
 a pharmaceutically acceptable salt thereof wherein ring Q²
 is pyridyl group, pyridazyl group, pyrazyl group, oxazolyl
 group, thiazolyl group, isoxazolyl group, or quinolinyl
 5 group.

11. The compound according to any one of claims 1 to 10 or
 a pharmaceutically acceptable salt thereof wherein W³ is
 methylene group which may be optionally substituted with
 10 the same or different 1 to 2 halogen atoms, or ethylene
 group which may be optionally substituted with the same or
 different 1 to 4 groups independently selected from the
 group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy;
 and R⁵ is hydroxy group or C₁₋₆ alkoxy group which may be
 15 optionally substituted with the same or different 1 to 3
 groups independently selected from the group consisting of
 halogen atom, hydroxy, and C₁₋₆ alkoxy.

12. The compound according to claim 1 represented by
 20 formula (1a'):



or a pharmaceutically acceptable salt thereof, wherein ring Q^{1a} is phenyl group, pyridyl group, or cyclohexyl group;

m is 1, 2, 3, 4, or 5;

R^{11} is, independently when two or more exist,

- 5 (1) hydrogen atom,
- (2) halogen atom,
- (3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms, or
- (4) C_{1-6} alkoxy group which may be optionally substituted
- 10 with the same or different 1 to 3 halogen atoms;

R^1 and R^2 are independently hydrogen atom, halogen atom, or C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

- 15 W^{1a} is methylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms, or ethylene group which may be optionally substituted with the same or different 1 to 4 halogen atoms;

$W^{2a}-Q^{2a}$ is $-NR^{3a}C(O)-Q^{2a}$, $-NR^{3a}C(O)CH_2O-Q^{2a}$, $-C(O)NR^{3a}-Q^{2a}$,
 20 or $-NR^{3a}C(O)-CH=CH-Q^{2a}$ wherein R^{3a} is hydrogen atom or C_{1-6} alkyl group;

ring Q^{2a} is 5- or 6-membered heteroaryl group;

- W^{3a} is methylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms,
- 25 or ethylene group which may be optionally substituted with

the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy;

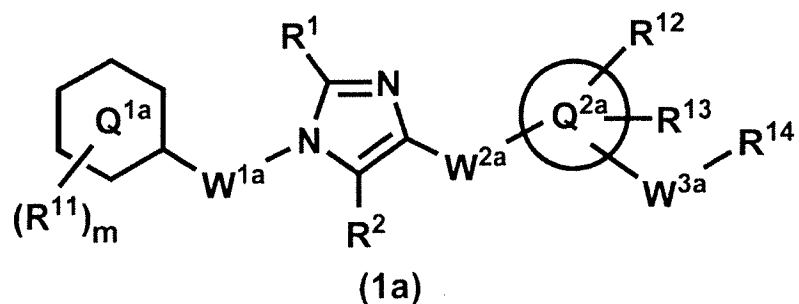
R¹² and R¹³ are independently

- 5 (1) hydrogen atom,
- (2) halogen atom,
- (3) C₁₋₆ alkyl group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy,
10 and C₁₋₆ alkoxy,
- (4) C₁₋₆ alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,
- 15 (5) C₃₋₁₀ cycloalkyl group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,
- (6) C₂₋₆ alkenyl group which may be optionally substituted
20 with the same or different 1 to 2 halogen atoms,
- (7) C₂₋₆ alkynyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms,
- (8) cyano group, or
- (9) amino group which may be optionally substituted with
25 the same or different 1 to 2 C₁₋₆ alkyl groups;

when R^{13} and W^{3a} are attached to the adjacent carbon atoms on ring Q^{2a} , they may be combined with the carbon atoms to form 5- or 6-membered cycloalkane ring; and

R^{14} is hydroxy group or C_{1-6} alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C_{1-6} alkoxy.

13. The compound according to claim 1 represented by formula (1a):



or a pharmaceutically acceptable salt thereof, wherein ring Q^{1a} is phenyl group, pyridyl group, or cyclohexyl group;

m is 1, 2, 3, 4, or 5;

R^{11} is, independently when two or more exist,

- (1) hydrogen atom,
- (2) halogen atom,
- (3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms, or
- (4) C_{1-6} alkoxy group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

R^1 and R^2 are independently hydrogen atom, halogen atom, or C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

5 W^{1a} is methylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms, or ethylene group which may be optionally substituted with the same or different 1 to 4 halogen atoms;

$W^{2a}-Q^{2a}$ is $-NR^{3a}C(O)-Q^{2a}$, $-NR^{3a}C(O)CH_2O-Q^{2a}$, or $-C(O)NR^{3a}-Q^{2a}$ wherein R^{3a} is hydrogen atom or C_{1-6} alkyl group;

ring Q^{2a} is 5- or 6-membered heteroaryl group;

W^{3a} is methylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms, or ethylene group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, hydroxy, and C_{1-6} alkoxy;

R^{12} and R^{13} are independently

(1) hydrogen atom,

20 (2) halogen atom,

(3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C_{1-6} alkoxy,

25 (4) C_{1-6} alkoxy group which may be optionally substituted

with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(5) C₃₋₁₀ cycloalkyl group which may be optionally substituted with the same or different 1 to 4 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(6) C₂₋₆ alkenyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms,

(7) C₂₋₆ alkynyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms,

(8) cyano group, or

(9) amino group which may be optionally substituted with the same or different 1 to 2 C₁₋₆ alkyl groups;

when R¹³ and W^{3a} are attached to the adjacent carbon atoms on ring Q^{2a}, they may be combined with the carbon atoms to form 5- or 6-membered cycloalkane ring; and

R¹⁴ is hydroxy group or C₁₋₆alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy.

14. The compound according to claim 12 or 13 or a pharmaceutically acceptable salt thereof wherein ring Q^{1a} is phenyl group.

15. The compound according to any one of claims 12 to 14
or a pharmaceutically acceptable salt thereof wherein W^{2a} -
 Q^{2a} is $-NHC(O)-Q^{2a}$.

5

16. The compound according to any one of claims 12 to 15
or a pharmaceutically acceptable salt thereof wherein ring
 Q^{2a} is pyridyl group, pyrimidyl group, pyridazyl group,
pyrazyl group, oxazolyl group, thiazolyl group, isoxazolyl
10 group, or isothiazolyl group.

17. The compound according to any one of claims 12 to 15
or a pharmaceutically acceptable salt thereof wherein ring
 Q^{2a} is pyridyl group, pyridazyl group, pyrazyl group,
15 oxazolyl group, thiazolyl group, or isoxazolyl group.

18. The compound according to any one of claims 12 to 15
or a pharmaceutically acceptable salt thereof wherein ring
 Q^{2a} is pyridyl group.

20

19. The compound according to any one of claims 12 to 18
or a pharmaceutically acceptable salt thereof wherein R^{12}
and R^{13} are independently

(1) hydrogen atom,

25

(2) halogen atom,

(3) C₁₋₆ alkyl group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

5 (4) C₁₋₆ alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy,

(5) C₂₋₆ alkenyl group which may be optionally substituted
10 with the same or different 1 to 2 halogen atoms, or

(6) amino group which may be optionally substituted with the same or different 1 to 2 C₁₋₆ alkyl groups.

20. The compound according to any one of claims 12 to 19
15 or a pharmaceutically acceptable salt thereof wherein R¹² and R¹³ are independently

(1) hydrogen atom,

(2) halogen atom,

(3) C₁₋₆ alkyl group which may be optionally substituted
20 with the same or different 1 to 3 groups independently selected from the group consisting of halogen atom, hydroxy, and C₁₋₆ alkoxy, or

(4) amino.

25 21. The compound according to any one of claims 12 to 20

or a pharmaceutically acceptable salt thereof wherein R^{13} is halogen atom, C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms, or amino; and R^{12} is hydrogen atom.

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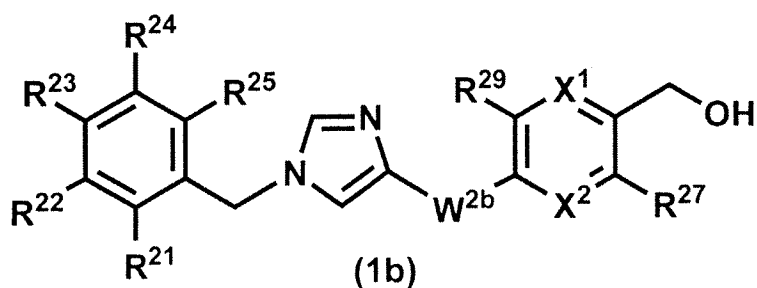
22. The compound according to any one of claims 12 to 21 or a pharmaceutically acceptable salt thereof wherein W^{3a} is methylene group which may be optionally substituted with the same or different 1 to 2 halogen atoms; and R^{14} is hydroxy group.

10

23. The compound according to any one of claims 1 to 22 or a pharmaceutically acceptable salt thereof wherein R^1 and R^2 are hydrogen atom.

15

24. The compound according to claim 1 represented by formula (1b):



20

or a pharmaceutically acceptable salt thereof, wherein X^1 is N or CR^{26} ;

X^2 is N or CR^{28} ;

provided that at least one of X^1 and X^2 is N;

R^{21} , R^{22} , R^{23} , R^{24} , and R^{25} are independently

(1) hydrogen atom,

(2) halogen atom,

5 (3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms, or

(4) C_{1-6} alkoxy group which may be optionally substituted with the same or different 1 to 3 halogen atoms;

W^{2b} is $-NHC(O)-$ or $-C(O)NH-$; and

10 R^{26} , R^{27} , R^{28} , and R^{29} are independently

(1) hydrogen atom,

(2) halogen atom,

(3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 groups independently
15 selected from the group consisting of halogen atom, hydroxy, and C_{1-6} alkoxy,

(4) C_{1-6} alkoxy group which may be optionally substituted with the same or different 1 to 3 groups independently
selected from the group consisting of halogen atom, hydroxy,
20 and C_{1-6} alkoxy,

(5) C_{2-6} alkenyl group which may be optionally substituted with the same or different 1 to 2 halogen atoms, or

(6) amino group which may be optionally substituted with the same or different 1 to 2 C_{1-6} alkyl groups.

25. The compound according to claim 24 or a pharmaceutically acceptable salt thereof wherein R^{22} is halogen atom or C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms.

5

26. The compound according to claim 24 or a pharmaceutically acceptable salt thereof wherein R^{22} is halogen atom or trifluoromethyl group.

10 27. The compound according to any one of claims 24 to 26 or a pharmaceutically acceptable salt thereof wherein R^{21} , R^{23} , R^{24} , and R^{25} are independently

(1) hydrogen atom,

(2) halogen atom, or

15 (3) C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms.

28. The compound according to any one of claims 24 to 27 or a pharmaceutically acceptable salt thereof wherein W^{2b}
20 is $-NHC(O)-$.

29. The compound according to any one of claims 24 to 28 or a pharmaceutically acceptable salt thereof wherein X^1 is N.

25

30. The compound according to any one of claims 24 to 29 or a pharmaceutically acceptable salt thereof wherein X^1 is N; and X^2 is CH.

5 31. The compound according to any one of claims 24 to 30 or a pharmaceutically acceptable salt thereof wherein R^{27} is halogen atom, C_{1-6} alkyl group which may be optionally substituted with the same or different 1 to 3 halogen atoms, or amino group; and R^{29} is hydrogen atom.

10

32. The compound according to any one of claims 24 to 31 or a pharmaceutically acceptable salt thereof wherein R^{27} is methyl group substituted with 1 to 3 fluorine atoms; and R^{29} is hydrogen atom.

15

33. The compound according to claim 1 selected from the following compounds or a pharmaceutically acceptable salt thereof:

6-(hydroxymethyl)-N-[1-(3,4,5-trifluorobenzyl)-1H-imidazol-4-yl]nicotinamide (Example 10),
20 6-(hydroxymethyl)-N-{1-[3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl}nicotinamide (Example 12),
5-(difluoromethyl)-6-(hydroxymethyl)-N-{1-[3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl}nicotinamide
25 (Example 17),

5-(difluoromethyl)-6-(hydroxymethyl)-N-[1-(3,4,5-trifluorobenzyl)-1H-imidazol-4-yl]nicotinamide (Example 18),

6-(hydroxymethyl)-5-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl]nicotinamide

5 (Example 19),

6-(hydroxymethyl)-5-methyl-N-[1-(3,4,5-trifluorobenzyl)-1H-imidazol-4-yl]nicotinamide (Example 39),

6-(hydroxymethyl)-5-methyl-N-[1-[3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl]nicotinamide

10 (Example 42),

5-amino-6-(hydroxymethyl)-N-[1-[3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl]nicotinamide

(Example 45),

5-amino-6-(hydroxymethyl)-N-[1-(3,4,5-trifluorobenzyl)-1H-imidazol-4-yl]nicotinamide (Example 46),

N-[1-(3,4-difluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 54),

N-[1-(3-chlorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 55),

20 5-(difluoromethyl)-N-[1-[4-fluoro-3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl]-6-(hydroxymethyl)nicotinamide (Example 57),

5-(difluoromethyl)-N-[1-[3-fluoro-5-(trifluoromethyl)benzyl]-1H-imidazol-4-yl]-6-

25 (hydroxymethyl)nicotinamide (Example 60),

N-[1-(3-chloro-4-fluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 61),

N-[1-(3-bromo-4-fluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 62),

5 5-(difluoromethyl)-6-(hydroxymethyl)-N-{1-[3-methoxy-5-(trifluoromethyl)benzyl]-1H-imidazol-4-yl}nicotinamide (Example 65),

5-(difluoromethyl)-6-(hydroxymethyl)-N-{1-[4-methyl-3-(trifluoromethyl)benzyl]-1H-imidazol-4-yl}nicotinamide
10 (Example 70),

N-[1-(3,4-dichlorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 71),

N-[1-(3,5-dichlorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 75),

15 N-[1-(3-bromo-5-fluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 76),

N-[1-(3-chloro-5-fluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 78),

20 N-[1-(3,5-difluorobenzyl)-1H-imidazol-4-yl]-5-(difluoromethyl)-6-(hydroxymethyl)nicotinamide (Example 79),

and

6-(hydroxymethyl)-N-[1-(3,4,5-trifluorobenzyl)-1H-imidazol-4-yl]pyridazine-3-carboxamide (Example 85).

25 34. A medicament comprising the compound according to any

one of claims 1 to 33 or a pharmaceutically acceptable salt thereof as an active ingredient.

35. An anti-tumor agent comprising the compound according to any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof as an active ingredient.

36. The anti-tumor agent according to claim 35 wherein the tumor is acute leukemia, chronic lymphatic leukemia, chronic myelocytic leukemia, polycythemia vera, malignant lymphoma, myeloma, brain tumor, head and neck cancer, esophageal cancer, thyroid cancer, small cell lung cancer, non-small cell lung cancer, breast cancer, stomach cancer, gallbladder or bile duct cancer, liver cancer, pancreatic cancer, colon cancer, rectal cancer, ovarian cancer, chorioepithelioma, endometrial cancer, cervical cancer, urothelial cancer, renal cell cancer, prostate cancer, testicular tumor, Wilms' tumor, malignant melanoma, neuroblastoma, osteosarcoma, Ewing's sarcoma, or soft tissue sarcoma.

37. A medicament comprising the compound according to any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof in combination with another anti-cancer agent selected from the group consisting of an anticancer

alkylating agent, an anticancer antimetabolite, an anticancer antibiotic, a plant-based anti-cancer agent, an anticancer platinum coordination compound, an anticancer camptothecin derivative, an anticancer tyrosine kinase
5 inhibitor, a serine-threonine kinase, a phospholipid kinase, a monoclonal antibody, an interferon, a biological response modifier, a hormone preparation, an immune checkpoint inhibitor, an epigenetics-related molecule inhibitor, a post-translational protein modification inhibitor, and
10 other anti-cancer agent or a pharmaceutically acceptable salt thereof.

38. Use of the compound according to any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof for the
15 manufacture of an agent for treating cancer.

39. A pharmaceutical composition for the treatment of cancer comprising the compound according to any one of claims 1 to 33 or a pharmaceutically acceptable salt
20 thereof.

40. The compound according to any one of claims 1 to 33 or a pharmaceutically acceptable salt thereof for the use in treating cancer.