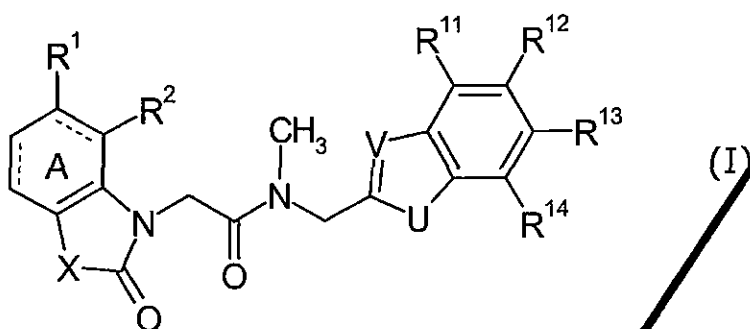


Claims

[Claim 1] A compound of the formula (I) or a salt thereof:

[Chem. 13]



(wherein

ring A is a benzene ring,

10 R¹ is lower alkyl, halogen, halogeno-lower alkyl, or -O-halogeno-lower alkyl,

R² is H or halogen,

R¹¹, R¹², R¹³ and R¹⁴ are the same as or different from each other, and are H, lower
alkyl, halogen, halogeno-lower alkyl, cycloalkyl, -O-lower alkyl, or -O-halogeno-lower
alkyl,

15 U is NR¹⁵ or O,

V is CH or N,

in the case where U is O, V is N,

R¹⁵ is H, lower alkyl, or -lower alkylene-OH, and

X is O).

20

[Claim 2] The compound or a salt thereof according to claim 1, wherein

U is NR¹⁵, and

V is N.

25

[Claim 3] The compound or a salt thereof according to claim 2, wherein

R¹ is halogen, halogeno-lower alkyl, or -O-halogeno-lower alkyl, and

R¹¹, R¹², R¹³, and R¹⁴ are the same as or different from each other, and are H,
halogen, halogeno-lower alkyl, cycloalkyl, or -O-halogeno-lower alkyl.

30

[Claim 4] The compound or a salt thereof according to claim 3, wherein R¹⁵ is H.

[Claim 5] The compound or a salt thereof according to claim 4, wherein R¹ is halogen or halogeno-lower alkyl.

5 [Claim 6] The compound or a salt thereof according to claim 5, wherein R¹¹, R¹², R¹³ and R¹⁴ are the same as or different from each other, and are H, halogen, or halogeno-lower alkyl.

10 [Claim 7] The compound or a salt thereof according to claim 6, wherein R¹² is halogen or halogeno-lower alkyl, and R¹¹, R¹³ and R¹⁴ are H.

[Claim 8] The compound or a salt thereof according to claim 7, which is selected from the following group consisting of:
 2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl)methyl}acetamide,
 15 N-[(5-chloro-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide,
 2-(5-chloro-4-fluoro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl)methyl}acetamide,
 N-[(5-bromo-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide, and
 20 N-[(5-chloro-1H-benzimidazol-2-yl)methyl]-N-methyl-2-[2-oxo-5-(trifluoromethyl)-1,3-benzoxazol-3(2H)-yl]acetamide.

[Claim 9] The compound or a salt thereof according to claim 8, which is 2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl)methyl}acetamide hydrochloride.
 25

[Claim 10] The compound or a salt thereof according to claim 8, which is 2-(5-chloro-4-fluoro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl)methyl}acetamide.
 30

[Claim 11] The compound or a salt thereof according to claim 8, which is N-[(5-bromo-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide.
 35

[Claim 12] A pharmaceutical composition comprising the compound or a salt thereof according to claim 1, and a pharmaceutically acceptable excipient.

[Claim 13] The pharmaceutical composition according to claim 12, which is a dopamine D1 receptor positive allosteric modulator.

5 [Claim 14] The pharmaceutical composition according to claim 12, which is a pharmaceutical composition for preventing or treating a disease selected from the group consisting of cognitive impairment, negative symptoms of schizophrenia, Parkinson's disease, Alzheimer's disease, Huntington's disease, and drug addictions.

10 [Claim 15] Use of the compound or a salt thereof according to claim 1 for the manufacture of a pharmaceutical composition for preventing or treating a disease selected from the group consisting of cognitive impairment, negative symptoms of schizophrenia, Parkinson's disease, Alzheimer's disease, Huntington's disease, and drug addictions.

15 [Claim 16] Use of the compound or a salt thereof according to claim 1 for preventing or treating a disease selected from the group consisting of cognitive impairment, negative symptoms of schizophrenia, Parkinson's disease, Alzheimer's disease, Huntington's disease, and drug addictions.

20 [Claim 17] The compound or a salt thereof according to claim 1 for preventing or treating a disease selected from the group consisting of cognitive impairment, negative symptoms of schizophrenia, Parkinson's disease, Alzheimer's disease, Huntington's disease, and drug addictions.

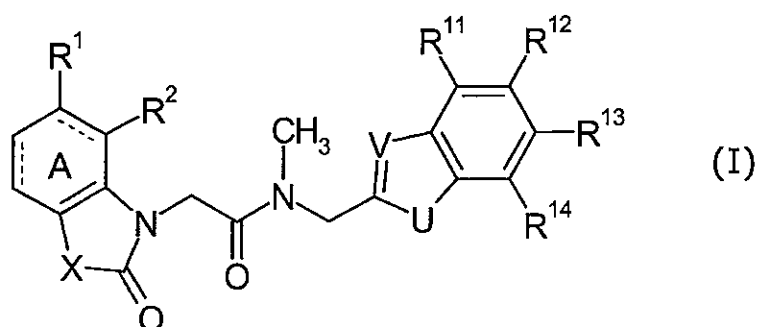
25 [Claim 18] A method for preventing or treating a disease selected from the group consisting of cognitive impairment, negative symptoms of schizophrenia, Parkinson's disease, Alzheimer's disease, Huntington's disease, and drug addictions, comprising administering to a subject an effective amount of the compound or a salt thereof according to claim 1.

Claims

[Claim 1] A compound of the formula (I) or a salt thereof:

[Chem. 13]

5



(wherein

ring A is a benzene ring,

10 R^1 is lower alkyl, halogen, halogeno-lower alkyl, or -O-halogeno-lower alkyl,

R^2 is H or halogen,

R^{11} , R^{12} , R^{13} and R^{14} are the same as or different from each other, and are H, lower alkyl, halogen, halogeno-lower alkyl, cycloalkyl, -O-lower alkyl, or -O-halogeno-lower alkyl,

15 U is NR^{15} or O,

V is CH or N,

in the case where U is O, V is N,

R^{15} is H, lower alkyl, or -lower alkylene-OH, and

X is O).

20

[Claim 2] The compound or a salt thereof according to claim 1, wherein

U is NR^{15} , and

V is N.

25 [Claim 3] The compound or a salt thereof according to claim 2, wherein

R^1 is halogen, halogeno-lower alkyl, or -O-halogeno-lower alkyl, and

R^{11} , R^{12} , R^{13} , and R^{14} are the same as or different from each other, and are H, halogen, halogeno-lower alkyl, cycloalkyl, or -O-halogeno-lower alkyl.

30 [Claim 4] The compound or a salt thereof according to claim 3, wherein R^{15} is H.

[Claim 5] The compound or a salt thereof according to claim 4, wherein R¹ is halogen or halogeno-lower alkyl.

5 [Claim 6] The compound or a salt thereof according to claim 5, wherein R¹¹, R¹², R¹³ and R¹⁴ are the same as or different from each other, and are H, halogen, or halogeno-lower alkyl.

10 [Claim 7] The compound or a salt thereof according to claim 6, wherein R¹² is halogen or halogeno-lower alkyl, and R¹¹, R¹³ and R¹⁴ are H.

[Claim 8] The compound or a salt thereof according to claim 7, which is selected from the following group consisting of:

2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl}methyl}acetamide,
 15 N-[(5-chloro-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide,
 2-(5-chloro-4-fluoro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl}methyl}acetamide,
 N-[(5-bromo-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide, and
 20 N-[(5-chloro-1H-benzimidazol-2-yl)methyl]-N-methyl-2-[2-oxo-5-(trifluoromethyl)-1,3-benzoxazol-3(2H)-yl]acetamide.

25 [Claim 9] The compound or a salt thereof according to claim 8, which is 2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl}methyl}acetamide hydrochloride.

30 [Claim 10] The compound or a salt thereof according to claim 8, which is 2-(5-chloro-4-fluoro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methyl-N-{{5-(trifluoromethyl)-1H-benzimidazol-2-yl}methyl}acetamide.

[Claim 11] The compound or a salt thereof according to claim 8, which is N-[(5-bromo-1H-benzimidazol-2-yl)methyl]-2-(5-chloro-2-oxo-1,3-benzoxazol-3(2H)-yl)-N-methylacetamide.

35 [Claim 12] A pharmaceutical composition comprising the compound or a salt thereof according to claim 1, and a pharmaceutically acceptable excipient.

[Claim 13] The pharmaceutical composition according to claim 12, which is a dopamine D1 receptor positive allosteric modulator.