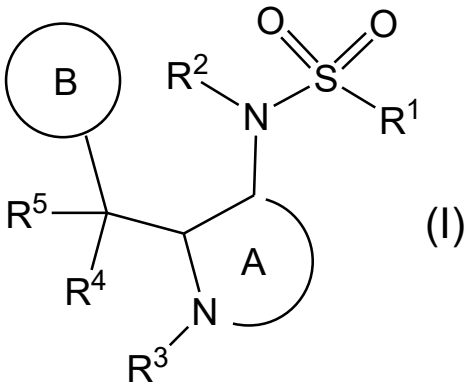
CLAIMS

1. A compound represented by the formula:



wherein

R^1 is

(1) a C_{1-6} alkyl group optionally substituted by 1 to 3 substituents selected from

(a) a halogen atom, and

(b) a C_{1-6} alkoxy group,

(2) a C_{3-6} cycloalkyl group optionally substituted by 1 to 3 halogen atoms, or

(3) a mono- or di-C_{1-6} alkylamino group;

R^2 is a hydrogen atom;

R^3 is

(1) a C_{1-6} alkoxy-carbonyl group,

(2) a C_{1-6} alkyl-carbonyl group optionally substituted by 1 to 3 hydroxy groups,

(3) a mono- or di-C_{1-6} alkyl-carbamoyl group,

(4) a N-C_{1-6} alkyl-N-C_{1-6} alkoxy-carbamoyl group,

(5) a C_{3-6} cycloalkyl-carbonyl group (the C_{3-6} cycloalkyl in the C_{3-6} cycloalkyl-carbonyl group may be a bridged ring group) optionally substituted by 1 to 3 substituents selected from

(a) a halogen atom,

(b) a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atoms,

(c) a hydroxy group,

(d) a C_{1-6} alkoxy group, and

(e) a cyano group,

(6) an oxetanylcarbonyl group,

(7) an azetidinylcarbonyl group optionally substituted by 1 to 3 substituents selected from

(a) a halogen atom, and

(b) a C_{1-6} alkyl group, or

(8) a 5-azaspiro[2.3]hexylcarbonyl group;

R^4 and R^5 are both hydrogen atoms;

Ring A is

(1) a pyrrolidine ring, or

(2) a piperidine ring; and

Ring B is

(1) a benzene ring

further substituted by one phenyl group optionally substituted by 1 to 3 substituents selected from

(i) a halogen atom, and

(ii) a C_{1-6} alkyl group, and

optionally further substituted by one halogen atom,

(2) a pyridine ring further substituted by one phenyl group optionally substituted by 1 to 3 halogen atoms,

(3) a thiazole ring further substituted by one phenyl group optionally substituted by 1 to 3 halogen atoms, or

(4) a piperidine ring further substituted by one phenyl group.

2. The compound or salt according to claim 1, wherein

R^1 is

(1) a C_{1-6} alkyl group,

(2) a C_{3-6} cycloalkyl group optionally substituted by 1 to 3 halogen atoms, or

(3) a mono- or di-C_{1-6} alkylamino group;

R^2 is a hydrogen atom;

R^3 is

(1) a C_{1-6} alkyl-carbonyl group optionally substituted by 1 to 3 hydroxy groups,

(2) a mono- or di-C_{1-6} alkyl-carbamoyl group,

(3) a N-C_{1-6} alkyl-N-C_{1-6} alkoxy-carbamoyl group, or
(4) an azetidinylcarbonyl group;
R^4 and R^5 are both hydrogen atoms;
Ring A is a pyrrolidine ring; and
Ring B is a benzene ring
further substituted by one phenyl group optionally substituted by 1 to 3 halogen atoms, and
optionally further substituted by one halogen atom.

3. A compound which is N-((2S,3S)-2-((2,3'-difluorobiphenyl-3-yl)methyl)-1-(2-hydroxy-2-methylpropanoyl)pyrrolidin-3-yl)ethanesulfonamide or a salt thereof.

4. A compound which is N-((2S,3S)-1-(2-hydroxy-2-methylpropanoyl)-2-((2,3',5'-trifluorobiphenyl-3-yl)methyl)pyrrolidin-3-yl)methanesulfonamide or a salt thereof.

5. A compound which is N-((2S,3S)-1-(2-hydroxy-2-methylpropanoyl)-2-((2,3',5'-trifluorobiphenyl-3-yl)methyl)pyrrolidin-3-yl)ethanesulfonamide or a salt thereof.

6. A compound selected from
(1) N-((2S,3S)-1-(azetidin-1-ylcarbonyl)-2-((2,3'-difluorobiphenyl-3-yl)methyl)pyrrolidin-3-yl)methanesulfonamide,
(2) N-((2S,3S)-1-(azetidin-1-ylcarbonyl)-2-((3',5'-difluorobiphenyl-3-yl)methyl)pyrrolidin-3-yl)ethanesulfonamide,
(3) N-((2S,3S)-1-(azetidin-1-ylcarbonyl)-2-(biphenyl-3-ylmethyl)pyrrolidin-3-yl)ethanesulfonamide,
(4) N-((2S,3S)-1-(azetidin-1-ylcarbonyl)-2-((2,3'-difluorobiphenyl-3-yl)methyl)pyrrolidin-3-yl)ethanesulfonamide,
(5) (2S,3S)-2-((2,3'-difluorobiphenyl-3-yl)methyl)-3-((ethylsulfonyl)amino)-N,N-dimethylpyrrolidine-1-carboxamide,
(6) (2S,3S)-2-((2,3'-difluorobiphenyl-3-yl)methyl)-3-((dimethylsulfamoyl)amino)-N,N-dimethylpyrrolidine-1-carboxamide,

(7) (2S,3S)-3-((ethylsulfonyl)amino)-N,N-dimethyl-2-((2,3',5'-trifluorobiphenyl-3-yl)methyl)pyrrolidine-1-carboxamide,
(8) (2S,3S)-2-(biphenyl-3-ylmethyl)-3-((ethylsulfonyl)amino)-N-methoxy-N-methylpyrrolidine-1-carboxamide,
(9) N-[(2S,3S)-2-[(2,3'-difluoro[1,1'-biphenyl]-3-yl)methyl]-1-(2-hydroxy-2-methylpropanoyl)pyrrolidin-3-yl]-1-fluorocyclopropane-1-sulfonamide,
(10) N-{(2S,3S)-1-(azetidine-1-carbonyl)-2-[(2-fluoro[1,1'-biphenyl]-3-yl)methyl]pyrrolidin-3-yl}ethanesulfonamide,
(11) (2S,3S)-3-[(ethanesulfonyl)amino]-2-[(3'-fluoro[1,1'-biphenyl]-3-yl)methyl]-N-methoxy-N-methylpyrrolidine-1-carboxamide,
(12) (2S,3S)-3-[(dimethylsulfamoyl)amino]-2-[(2-fluoro[1,1'-biphenyl]-3-yl)methyl]-N,N-dimethylpyrrolidine-1-carboxamide,
(13) (2S,3S)-3-[(dimethylsulfamoyl)amino]-N,N-dimethyl-2-[(2,3',5'-trifluoro[1,1'-biphenyl]-3-yl)methyl]pyrrolidine-1-carboxamide, and
(14) (2S,3S)-2-[(3',5'-difluoro[1,1'-biphenyl]-3-yl)methyl]-3-[(ethanesulfonyl)amino]-N-methoxy-N-methylpyrrolidine-1-carboxamide
or a salt thereof.

7. A medicament comprising the compound or salt according to any one of claims 1 to 6.

8. The medicament according to claim 7, for use in therapy, wherein the therapy comprises treatment of a disease or disorder associated with an orexin type 2 receptor agonist.

9. The medicament according to claim 8, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, sleep apnea syndrome, narcolepsy syndrome accompanied by narcolepsy-like symptoms, hypersomnia syndrome accompanied by daytime hypersomnia, Alzheimer’s, obesity, insulin resistance syndrome, cardiac

failure, diseases related to bone loss, sepsis, disturbance of consciousness such as coma and the like, and side effects and complications due to anesthesia, or the medicament is for use as an anesthetic antagonist.

10. The medicament of claim 9, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, or sleep apnea syndrome.

11. The medicament of claim 9, wherein the disease or disorder is narcolepsy.

12. The compound or salt according to any one of claims 1 to 6 for use in therapy, wherein the therapy comprises treatment of a disease or disorder associated with an orexin type 2 receptor.

13. The compound of claim 12, or a salt thereof, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, sleep apnea syndrome, narcolepsy syndrome accompanied by narcolepsy-like symptoms, hypersomnia syndrome accompanied by daytime hypersomnia, Alzheimer, obesity, insulin resistance syndrome, cardiac failure, diseases related to bone loss, sepsis, disturbance of consciousness such as coma and the like, side effects and complications due to anesthesia, or the compound or salt is for use as an anesthetic antagonist.

14. The compound of claim 12, or a salt thereof, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, or sleep apnea syndrome.

15. The compound of claim 12, or a salt thereof, wherein the disease or disorder is narcolepsy.

16. Use of the compound or salt according to any one of claims 1 to 6 for the manufacture of a medicament for use in therapy, wherein the therapy comprises treatment of a disease or disorder associated with an orexin type 2 receptor.

17. The use according to claim 16, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, sleep apnea syndrome, narcolepsy syndrome accompanied by narcolepsy-like symptoms, hypersomnia syndrome accompanied by daytime hypersomnia, Alzheimer, obesity, insulin resistance syndrome, cardiac failure, diseases related to bone loss, sepsis, disturbance of consciousness such as coma and the like, side effects and complications due to anesthesia, or the medicament is for use as an anesthetic antagonist.

18. The use of claim 16, wherein the disease or disorder is selected from the group consisting of narcolepsy, idiopathic hypersomnia, hypersomnia, sleep apnea syndrome, or side effects and complications due to anesthesia.

19. The use of claim 16, wherein the disease or disorder is narcolepsy.