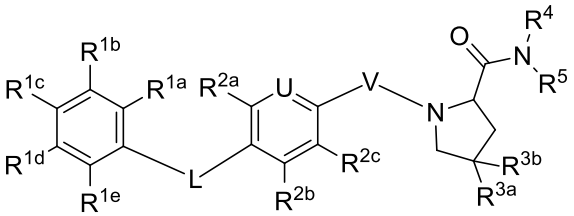
What is claimed is:

1. A compound having Formula (I) or a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof,



(I),

wherein

L is $-CH_2O-$ or $-OCH_2-$;

U is CR^u or N;

V is $-CH_2-$, $-CH_2CH_2-$ or a single bond;

each R^{1a}, R^{1b}, R^{1c}, R^{1d} and R^{1e} is independently H, D, F, Cl, Br, I, -CN, $-NO_2$, $-NH_2$, -OH, -SH, -COOH, $-C(=O)NH_2$, $-C(=O)NHCH_3$, $-C(=O)N(CH_3)_2$, $-C(=O)-(C_1\text{-}C_6$ alkyl), $-C(=O)-(C_1\text{-}C_6$ alkoxy), $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ alkynyl, $C_1\text{-}C_6$ haloalkyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylamino, hydroxy-substituted $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, 3-8 membered heterocyclyl, $C_6\text{-}C_{10}$ aryl or 5-10 membered heteroaryl;

R^u is H, D, F, Cl, Br, I, -CN, $-NO_2$, $-NH_2$, -OH, -SH, -COOH, $-C(=O)NH_2$, $-C(=O)NHCH_3$, $-C(=O)N(CH_3)_2$, $-C(=O)-(C_1\text{-}C_6$ alkyl), $-C(=O)-(C_1\text{-}C_6$ alkoxy), $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ alkynyl, $C_1\text{-}C_6$ haloalkyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylamino, hydroxy-substituted $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, 3-8 membered heterocyclyl, $C_6\text{-}C_{10}$ aryl or 5-10 membered heteroaryl;

each R^{2a}, R^{2b} and R^{2c} is independently H, D, F, Cl, Br, I, -CN, $-NO_2$, $-NH_2$, -OH, -SH, -COOH, $-C(=O)NH_2$, $-C(=O)NHCH_3$, $-C(=O)N(CH_3)_2$, $-C(=O)-(C_1\text{-}C_6$ alkyl), $-C(=O)-(C_1\text{-}C_6$ alkoxy), $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ alkynyl, $C_1\text{-}C_6$ haloalkyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy, $C_1\text{-}C_6$ alkylthio, $C_1\text{-}C_6$ alkylamino, hydroxy-substituted $C_1\text{-}C_6$ alkyl, $C_3\text{-}C_8$ cycloalkyl, 3-8 membered heterocyclyl, $C_6\text{-}C_{10}$ aryl or 5-10 membered heteroaryl;

R^{3a} is F, Cl, Br, I, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_2\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy or hydroxy-substituted $C_1\text{-}C_6$ alkyl;

R^{3b} is H, D, F, Cl, Br, I, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ haloalkyl, $C_1\text{-}C_6$ alkoxy, $C_1\text{-}C_6$ haloalkoxy or hydroxy-substituted $C_1\text{-}C_6$ alkyl; and

each R^4 and R^5 is independently H, D, $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6$ alkenyl, $C_2\text{-}C_6$ alkynyl, $C_1\text{-}C_6$

haloalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_1-C_6 alkylthio, C_1-C_6 alkylamino, hydroxy-substituted C_1-C_6 alkyl, C_3-C_8 cycloalkyl, 3-8 membered heterocyclyl, C_6-C_{10} aryl or 5-10 membered heteroaryl, wherein each of the C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_1-C_6 alkylthio, C_1-C_6 alkylamino, hydroxy-substituted C_1-C_6 alkyl, C_3-C_8 cycloalkyl, 3-8 membered heterocyclyl, C_6-C_{10} aryl and 5-10 membered heteroaryl is independently and optionally substituted with 1, 2, 3, 4 or 5 substituents selected from D, F, Cl, Br, I, -OH, -NH_2, -NO_2, -CN, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_3-C_8 cycloalkyl or C_6-C_{10} aryl.

2. The compound of claim 1, wherein each R^{1a}, R^{1b}, R^{1c}, R^{1d} and R^{1e} is independently H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-(C_1-C_4 alkyl), -C(=O)-(C_1-C_4 alkoxy), C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_1-C_4 alkylthio, C_1-C_4 alkylamino, hydroxy-substituted C_1-C_4 alkyl, C_3-C_6 cycloalkyl, 3-6 membered heterocyclyl, C_6-C_{10} aryl or 5-10 membered heteroaryl;

R^u is H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-(C_1-C_4 alkyl), -C(=O)-(C_1-C_4 alkoxy), C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_1-C_4 alkylthio, C_1-C_4 alkylamino, hydroxy-substituted C_1-C_4 alkyl, C_3-C_6 cycloalkyl, 3-6 membered heterocyclyl, C_6-C_{10} aryl or 5-10 membered heteroaryl;

each R^{2a}, R^{2b} and R^{2c} is independently H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-(C_1-C_4 alkyl), -C(=O)-(C_1-C_4 alkoxy), C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_1-C_4 alkylthio, C_1-C_4 alkylamino, hydroxy-substituted C_1-C_4 alkyl, C_3-C_6 cycloalkyl, 3-6 membered heterocyclyl, C_6-C_{10} aryl or 5-10 membered heteroaryl.

3. The compound of claim 1 or 2, wherein each R^{1a}, R^{1b}, R^{1c}, R^{1d} and R^{1e} is independently H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-CH_3, -C(=O)-OCH_3, methyl, ethyl, *n*-propyl, *i*-propyl, allyl, propenyl, propargyl, propinyl, -CHF_2, -CF_3, -$CHFCH_2F$, -CF_2CHF_2, -CH_2CF_3, -$CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, -$OCHF_2$, -OCF_3, -$OCHFCH_2F$, -OCF_2CHF_2, -OCH_2CF_3, -$OCH_2CF_2CHF_2$, methylthio, ethylthio, methylamino, dimethylamino, ethylamino, hydroxymethyl, 2-hydroxyethyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, azetidinyl, pyrrolidinyl, tetrahydrofuranyl, piperidyl, piperazinyl, morpholinyl, phenyl, indenyl, naphthyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, furanyl, thienyl, thiazolyl, oxazolyl,

pyridyl, pyrimidyl, pyrazinyl, pyridazyl, benzimidazolyl, indolyl or quinolyl;

R^u is H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-CH_3, -C(=O)-OCH_3, methyl, ethyl, *n*-propyl, *i*-propyl, allyl, propenyl, propargyl, propinyl, -CHF_2, -CF_3, -$CHFCH_2F$, -CF_2CHF_2, -CH_2CF_3, -$CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, -$OCHF_2$, -OCF_3, -$OCHFCH_2F$, -OCF_2CHF_2, -OCH_2CF_3, -$OCH_2CF_2CHF_2$, methylthio, ethylthio, methylamino, dimethylamino, ethylamino, hydroxymethyl, 2-hydroxyethyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, azetidinyl, pyrrolidinyl, tetrahydrofuranyl, piperidyl, piperazinyl, morpholinyl, phenyl, indenyl, naphthyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, furanyl, thienyl, thiazolyl, oxazolyl, pyridyl, pyrimidyl, pyrazinyl, pyridazyl, benzimidazolyl, indolyl or quinolyl;

each R^{2a}, R^{2b} and R^{2c} is independently H, D, F, Cl, Br, I, -CN, -NO_2, -NH_2, -OH, -SH, -COOH, -C(=O)NH_2, -C(=O)$NHCH_3$, -C(=O)$N(CH_3)_2$, -C(=O)-CH_3, -C(=O)-OCH_3, methyl, ethyl, *n*-propyl, *i*-propyl, allyl, propenyl, propargyl, propinyl, -CHF_2, -CF_3, -$CHFCH_2F$, -CF_2CHF_2, -CH_2CF_3, -$CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, -$OCHF_2$, -OCF_3, -$OCHFCH_2F$, -OCF_2CHF_2, -OCH_2CF_3, -$OCH_2CF_2CHF_2$, methylthio, ethylthio, methylamino, dimethylamino, ethylamino, hydroxymethyl, 2-hydroxyethyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, azetidinyl, pyrrolidinyl, tetrahydrofuranyl, piperidyl, piperazinyl, morpholinyl, phenyl, indenyl, naphthyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, furanyl, thienyl, thiazolyl, oxazolyl, pyridyl, pyrimidyl, pyrazinyl, pyridazyl, benzimidazolyl, indolyl or quinolyl.

4. The compound of any one of claims 1 to 3, wherein R^{3a} is F, Cl, Br, I, C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_2-C_4 alkoxy, C_1-C_4 haloalkoxy or hydroxy-substituted C_1-C_4 alkyl;

R^{3b} is H, D, F, Cl, Br, I, C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy or hydroxy-substituted C_1-C_4 alkyl.

5. The compound of any one of claims 1 to 4, wherein R^{3a} is F, Cl, Br, I, methyl, ethyl, *n*-propyl, *i*-propyl, -CHF_2, -CF_3, -$CHFCH_2F$, -CF_2CHF_2, -CH_2CF_3, -$CH_2CF_2CHF_2$, ethoxy, *n*-propoxy, isopropoxy, -$OCHF_2$, -OCF_3, -$OCHFCH_2F$, -OCF_2CHF_2, -OCH_2CF_3, -$OCH_2CF_2CHF_2$, hydroxymethyl or 2-hydroxyethyl;

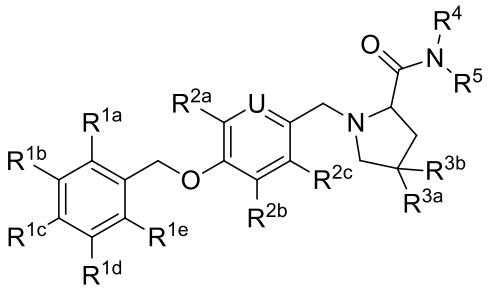
R^{3b} is H, D, F, Cl, Br, I, methyl, ethyl, *n*-propyl, *i*-propyl, -CHF_2, -CF_3, -$CHFCH_2F$, -CF_2CHF_2, -CH_2CF_3, -$CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, -$OCHF_2$, -OCF_3, -$OCHFCH_2F$, -OCF_2CHF_2, -OCH_2CF_3, -$OCH_2CF_2CHF_2$, hydroxymethyl or 2-hydroxyethyl.

6. The compound of any one of claims 1 to 5, wherein each R^4 and R^5 is independently H,

D, C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_1-C_4 alkylthio, C_1-C_4 alkylamino, hydroxy-substituted C_1-C_4 alkyl, C_3-C_6 cycloalkyl, 3-6 membered heterocyclyl, C_6-C_{10} aryl or 5-10 membered heteroaryl, wherein each of the C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_1-C_4 alkylthio, C_1-C_4 alkylamino, hydroxy-substituted C_1-C_4 alkyl, C_3-C_6 cycloalkyl, 3-6 membered heterocyclyl, C_6-C_{10} aryl and 5-10 membered heteroaryl is independently and optionally substituted with 1, 2, 3, 4 or 5 substituents selected from D, F, Cl, Br, I, -OH, $-NH_2$, $-NO_2$, -CN, C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_3-C_6 cycloalkyl or C_6-C_{10} aryl.

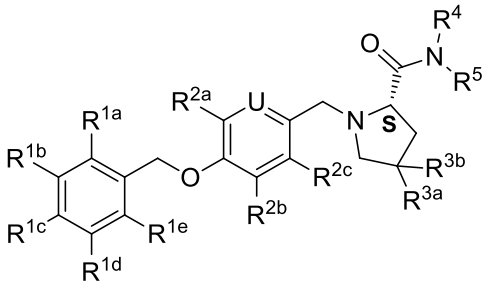
7. The compound of any one of claims 1 to 6, wherein each R^4 and R^5 is independently H, D, methyl, ethyl, *n*-propyl, *i*-propyl, allyl, propenyl, propargyl, propinyl, $-CHF_2$, $-CF_3$, $-CHFCH_2F$, $-CF_2CHF_2$, $-CH_2CF_3$, $-CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, $-OCHF_2$, $-OCF_3$, $-OCHFCH_2F$, $-OCF_2CHF_2$, $-OCH_2CF_3$, $-OCH_2CF_2CHF_2$, methylthio, ethylthio, methylamino, dimethylamino, ethylamino, hydroxymethyl, 2-hydroxyethyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, azetidinyl, pyrrolidinyl, tetrahydrofuranyl, piperidyl, piperazinyl, morpholinyl, phenyl, indenyl, naphthyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, furanyl, thienyl, thiazolyl, oxazolyl, pyridyl, pyrimidyl, pyrazinyl, pyridazyl, benzimidazolyl, indolyl or quinolyl, wherein each of the methyl, ethyl, *n*-propyl, *i*-propyl, allyl, propenyl, propargyl, propinyl, $-CHF_2$, $-CHFCH_2F$, $-CF_2CHF_2$, $-CH_2CF_3$, $-CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, $-OCHF_2$, $-OCHFCH_2F$, $-OCF_2CHF_2$, $-OCH_2CF_3$, $-OCH_2CF_2CHF_2$, methylthio, ethylthio, methylamino, dimethylamino, ethylamino, hydroxymethyl, 2-hydroxyethyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, azetidinyl, pyrrolidinyl, tetrahydrofuranyl, piperidyl, piperazinyl, morpholinyl, phenyl, indenyl, naphthyl, pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, furanyl, thienyl, thiazolyl, oxazolyl, pyridyl, pyrimidyl, pyrazinyl, pyridazyl, benzimidazolyl, indolyl and quinolyl is independently and optionally substituted with 1, 2, 3, 4 or 5 substituents selected from D, F, Cl, Br, I, -OH, $-NH_2$, $-NO_2$, -CN, methyl, ethyl, *n*-propyl, *i*-propyl, $-CHF_2$, $-CF_3$, $-CHFCH_2F$, $-CF_2CHF_2$, $-CH_2CF_3$, $-CH_2CF_2CHF_2$, methoxy, ethoxy, *n*-propoxy, isopropoxy, $-OCHF_2$, $-OCF_3$, $-OCHFCH_2F$, $-OCF_2CHF_2$, $-OCH_2CF_3$, $-OCH_2CF_2CHF_2$, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, phenyl, indenyl or naphthyl.

8. The compound of any one of claims 1 to 7 having Formula (II), or a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof,



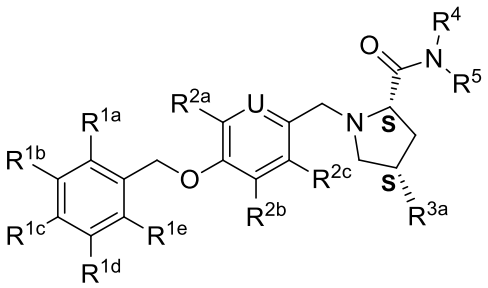
(II).

9. The compound of any one of claims 1 to 8 having Formula (III), or a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof,



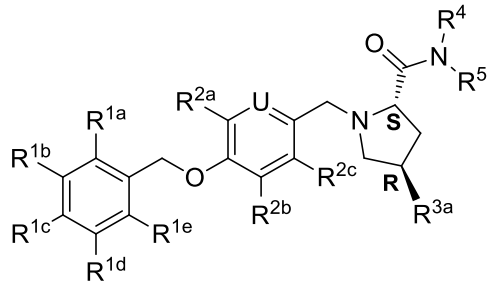
(III).

10. The compound of any one of claims 1 to 9 having Formula (IV), or a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof,



(IV).

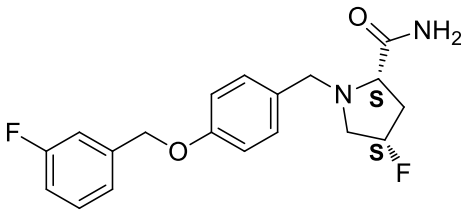
11. The compound of any one of claims 1 to 9 having Formula (V), or a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof,



(V).

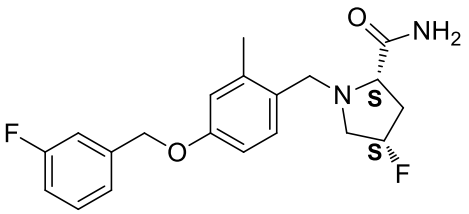
12. The compound of any one of claims 1 to 11 having one of the following structures or

a stereoisomer, a geometric isomer, a tautomer, an *N*-oxide, a hydrate, a solvate, a metabolite, a pharmaceutically acceptable salt or a prodrug thereof:



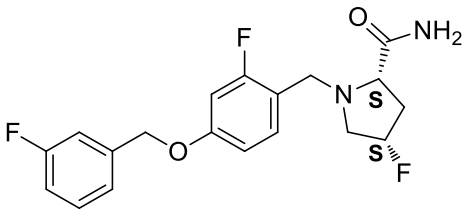
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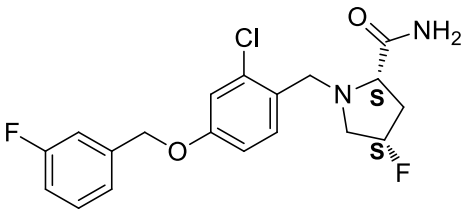
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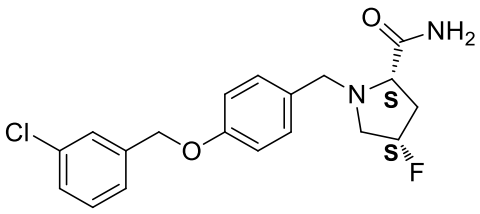
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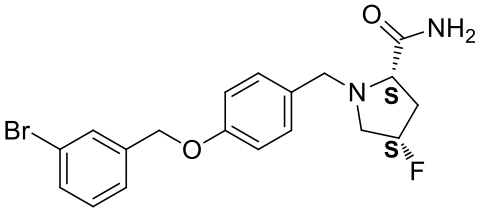
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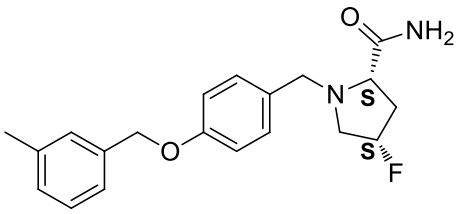
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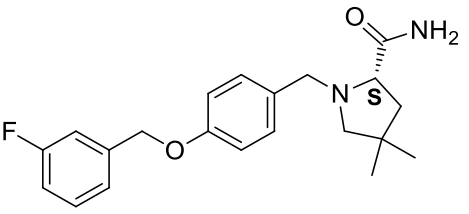
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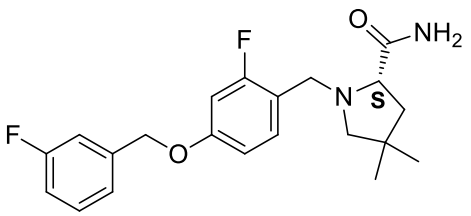
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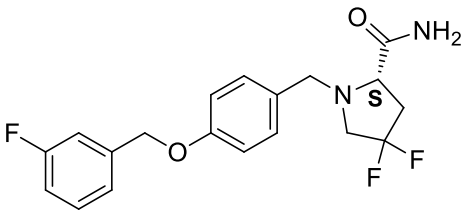
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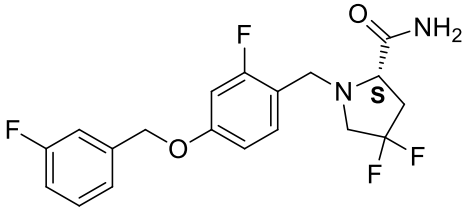
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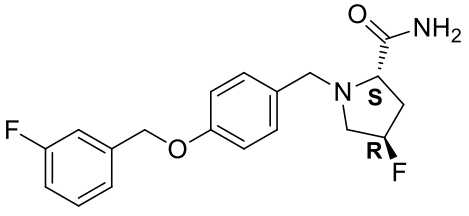
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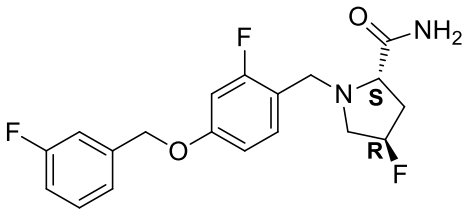
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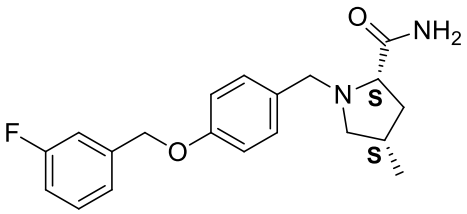
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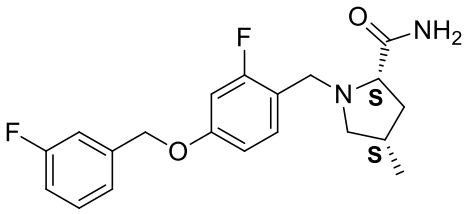
(13)

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(14)

or



(15)

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13. A pharmaceutical composition comprising the compound of any one of claims 1 to 12.

14. The pharmaceutical composition according to claim 13, wherein the pharmaceutical composition optionally comprises a pharmaceutically acceptable excipient, carrier, adjuvant or a combination thereof.

15. Use of the compound of any one of claims 1 to 12 in the manufacture of a medicament for preventing, treating or lessening a disease regulated by MAO-B in a subject, wherein the disease regulated by MAO-B is a neurodegenerative disease, psychosis or cancer.

16. The use of claim 15, wherein the neurodegenerative disease is Parkinson's disease, cerebral ischemia, Alzheimer's disease, amyotrophic lateral sclerosis, bovine spongiform encephalopathy, Huntington's chorea, Creutzfeldt-Jakob disease, ataxia telangiectasia, cerebellar atrophy, spinal muscular atrophy, primary lateral sclerosis or multiple sclerosis.

17. The pharmaceutical composition of any one of claims 13 to 14 for use in preventing, treating or lessening a disease regulated by MAO-B in a subject, wherein the disease regulated by MAO-B is a neurodegenerative disease, psychosis or cancer.

18. The pharmaceutical composition of claim 17, wherein the neurodegenerative disease is Parkinson's disease, cerebral ischemia, Alzheimer's disease, amyotrophic lateral sclerosis, bovine spongiform encephalopathy, Huntington's chorea, Creutzfeldt-Jakob disease, ataxia telangiectasia, cerebellar atrophy, spinal muscular atrophy, primary lateral sclerosis or multiple sclerosis.