



(12) Translation of
European patent specification

(11) NO/EP 3507289 B1

NORWAY

(19) NO
(51) Int Cl.
C07D 471/04 (2006.01)
A61K 31/4353 (2006.01)
A61K 31/436 (2006.01)
A61K 31/437 (2006.01)
A61K 31/4375 (2006.01)
A61P 25/00 (2006.01)
C07D 491/04 (2006.01)
C07D 498/04 (2006.01)

Norwegian Industrial Property Office

(45)	Translation Published	2020.10.12
(80)	Date of The European Patent Office Publication of the Granted Patent	2020.07.15
(86)	European Application Nr.	17777380.1
(86)	European Filing Date	2017.08.31
(87)	The European Application's Publication Date	2019.07.10
(30)	Priority	2016.09.02, IN, 201641030062 2017.04.13, IN, 201741013343
(84)	Designated Contracting States:	AL ; AT ; BE ; BG ; CH ; CY ; CZ ; DE ; DK ; EE ; ES ; FI ; FR ; GB ; GR ; HR ; HU ; IE ; IS ; IT ; LI ; LT ; LU ; LV ; MC ; MK ; MT ; NL ; NO ; PL ; PT ; RO ; RS ; SE ; SI ; SK ; SM ; TR
	Designated Extension States:	BA ; ME
	Designated Validation States:	MA ; MD
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(54) Title **MUSCARINIC M1 RECEPTOR POSITIVE ALLOSTERIC MODULATORS**

(56) References

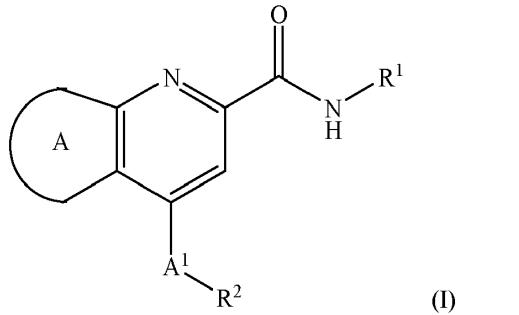
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Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

PATENTKRAV

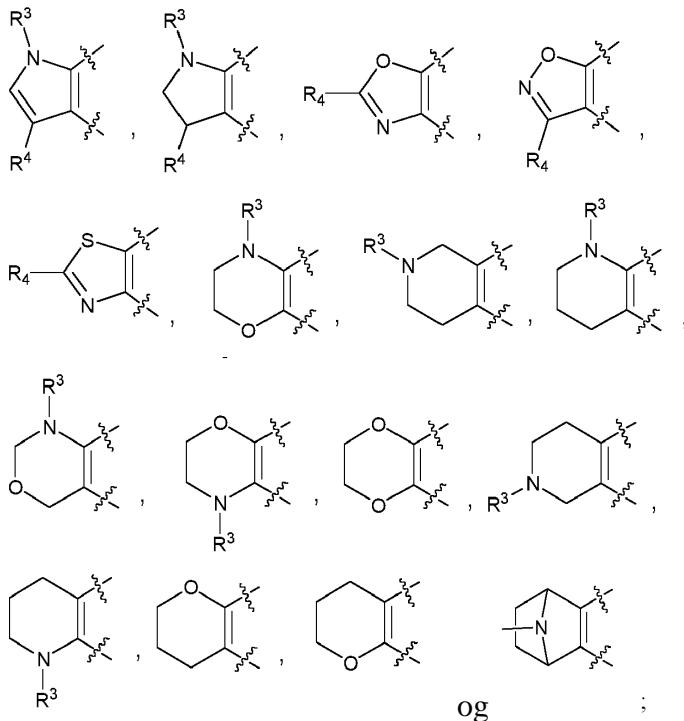
1. Forbindelse av formel (I),



hvor:

5

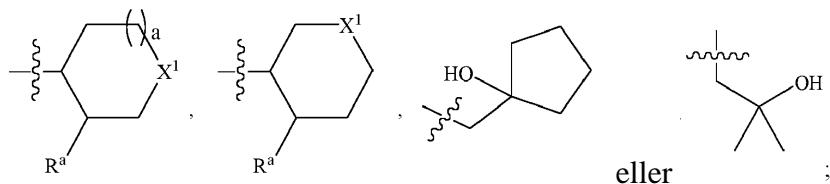
ring A velges fra:



10

A¹ er CH₂, CHF eller CF₂;

R¹ velges fra gruppen som består av:



eller ;

R^a er OH;

X¹ velges uavhengig fra CH₂ eller O;

15

a er 0 eller 1;

R² er -(C₆₋₁₀)-aryl eller -(C₅₋₁₀)-heteroaryl; hver av disse substitueres eventuelt med én eller flere substituenter valgt fra halogen, -O-(C₁₋₄)-alkyl, -S-(C₁₋₄)-alkyl, -N(CH₃)₂, -(C₁₋₄)-

alkyl, -(C₃₋₆)-sykloalkyl, halogen-(C₁₋₄)-alkyl, -OH, -NH₂, -CN eller R^{2a};

R^{2a} er -(C₆₋₁₀)-aryl eller (C₅₋₁₀)-heteroaryl; hver av disse substitueres eventuelt med én eller flere substituenter valgt fra gruppen som består av halogen, -OH, -NH₂, -CN, -O-(C₁₋₂)-alkyl, -S-(C₁₋₂)-alkyl, -(C₁₋₂)-alkyl eller (C₃₋₆)-sykloalkyl;

5 R³ er -(C₁₋₄)-alkyl, -(C₃₋₆)-sykloalkyl, -(C₁₋₄)-alkyl-(C₃₋₆)-sykloalkyl, halogen(C₁₋₄)-alkyl og hydrogen; og

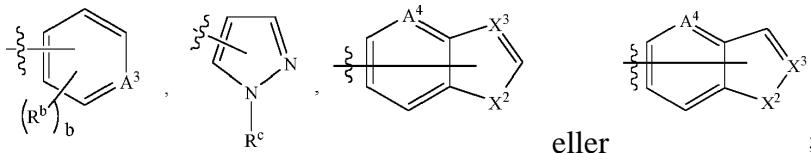
R⁴ er hydrogen, -(C₁₋₄)-alkyl og halogen-(C₁₋₄)-alkyl;

eller en isotopisk form, en stereoisomer, en tautomer eller et farmasøytisk akseptabelt salt derav.

10

2. Forbindelsen av formel (I) ifølge krav 1, hvori:

R² velges fra gruppen som består av:



A³ er N eller CH;

15 A⁴ er CH eller CF;

R^b ved hver forekomst velges uavhengig fra halogen, -O-(C₁₋₄)-alkyl, -S-(C₁₋₄)-alkyl, -N(CH₃)₂, -(C₁₋₄)-alkyl, -(C₃₋₆)-sykloalkyl, halogen-(C₁₋₄)-alkyl, -OH, -NH₂, -CN, fenyl, pyridyl, pyrazolyl, tiazolyl og oksazolyl; hvori fenyl, pyridyl, pyrazolyl, tiazolyl og oksazolyl eventuelt substitueres med én eller flere substituenter valgt fra gruppen som består av halogen, -OH, -NH₂, -CN, -O-(C₁₋₂)-alkyl, -S-(C₁₋₂)-alkyl, -(C₁₋₂)-alkyl eller -(C₃₋₆)-sykloalkyl;

20 -R^c er hydrogen eller -(C₁₋₄)-alkyl;

X² velges uavhengig fra NH, -N-(C₁₋₂)-alkyl, O eller S;

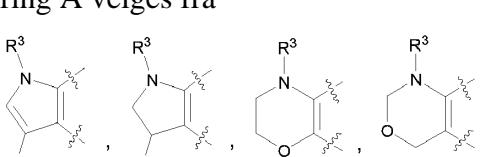
X³ velges uavhengig fra CH eller N;

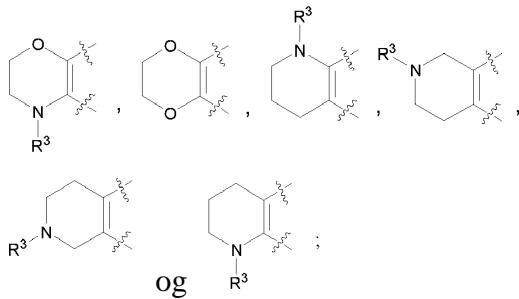
b er 0, 1 eller 2;

25 «~~~» representerer festepunktet.

3. Forbindelsen av formel (I) ifølge krav 1, hvori:

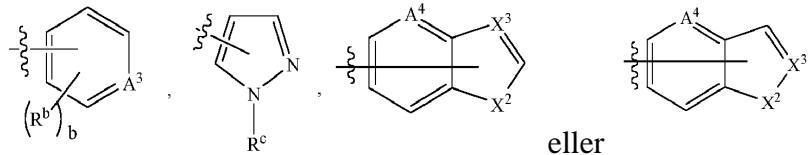
ring A velges fra





A¹ er CH₂;

R² velges fra gruppen som består av:



A³ er N eller CH;

A⁴ er CH eller CF;

R^b ved hver forekomst velges uavhengig fra halogen, -O-(C₁₋₄)-alkyl, -S-(C₁₋₄)-alkyl, -N(CH₃)₂, -(C₁₋₄)-alkyl, -(C₃₋₆)-sykloalkyl, halogen-(C₁₋₄)-alkyl, -OH,

10 -NH₂, -CN, fenyl, pyridyl, pyrazolyl, tiazolyl og oksazolyl; hvori fenyl, pyridyl, pyrazolyl, tiazolyl og oksazolyl eventuelt substitueres med én eller flere substituenter valgt fra gruppen som består av halogen, -OH, -NH₂, -CN, -O-(C₁₋₂)-alkyl, -S-(C₁₋₂)-alkyl, -(C₁₋₂)-alkyl eller -(C₃₋₆)-sykloalkyl;

R^c er hydrogen eller -(C₁₋₄)-alkyl;

15 X² velges uavhengig fra NH, -N-(C₁₋₂)-alkyl, O eller S;

X³ velges uavhengig fra CH eller N;

b er 0, 1 eller 2;

«~~~» representerer festepunktet;

R³ er -(C₁₋₄)-alkyl, halogen-(C₁₋₄)-alkyl eller hydrogen; og

20 R⁴ er hydrogen, -(C₁₋₄)-alkyl og halogen-(C₁₋₄)-alkyl;

eller en isotopisk form, en stereoisomer, en tautomer eller et farmasøytisk akseptabelt salt derav.

4. Forbindelsen ifølge et hvilket som helst av krav 1 til 3, hvori forbindelsen velges fra gruppen som består av:

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmetyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-metokspypyridin-5-ylmetyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-5-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-

5 b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-tiazol-4-ylbenzyl)-1-metyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-pyrazol-1-ylbenzyl)-1-metyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid;

10 N-[(1S,2S)-2-hydroksysykloheksyl]-4-[4-(1-metyl-1H-pyrazol-4-yl)benzyl]-1-metyl-

1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-[2-fluor-4-(1-metyl-1H-pyrazol-4-yl)benzyl]-1-

metyl- 1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-metylpyridin-5-ylmethyl)-1-metyl-1H-

15 pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-klorpyridin-4-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2,5-difluorpyridin-4-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

20 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(benzotiazol-6-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2'-fluor-[2,5]bipyridinyl-5-ylmethyl)-1-metyl-

1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(pyridin-4-ylmethyl)-1-metyl-1H-pyrrolo[2,3-

25 b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-[2-(1-metyl-1H-pyrazol-4-yl)pyridin-5-ylmethyl]-

1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2,3-difluorbenzyl)-1-metyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid;

30 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-metylpyridin-4-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-metoksybenzyl)-1-metyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-metylsulfanylpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

5 N-[(1S,2S)-2-hydroksysykloheksyl]-4-[4-(2-metylpyridin-3-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(1-metyl-1H-benzimidazol-4-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-klorpyridin-5-ylmethyl)-1-(2-fluoretyl)-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

10 N-(2-hydroksy-2-metylpropyl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(3-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

15 N-(1-hydroksysyklopentylmetyl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(pyridin-3-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-syklopropylpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

20 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmethyl)-1-etyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmethyl)-1-isopropyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

25 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2,3-difluorfenylmetyl)-1,3-dimetyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

30 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-

5 methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

10 *Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-methyl-1H-pyrrolo[2,3-
b]pyridin-6-karboksamid (Isomer-I);

15 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-methyl-1H-pyrrolo[2,3-
b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

20 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid;

25 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-pyrrolo[2,3-
b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2,3-difluorbenzyl)-1-methyl-1H-pyrrolo[2,3-
b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-
methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

30 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-fluorpyridin-4-ylmethyl)-1-methyl-1H-
pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-

metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

5 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

10 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

15 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

20 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

25 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(3,4-difluorbenzyl)-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

30 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

25 *Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

30 *Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-metyl-1H-pyrazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-metyl-1H-pyrazol-4-yl)benzyl]-1-metyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-metyl-1H-pyrazol-4-yl)benzyl]-1-

methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-metyl-1H-pyrazol-4-

yl)benzyl]-1-methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-methyl-1H-pyrazol-4-yl)benzyl]-1-

5 methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(1-methyl-1H-pyrazol-4-yl)benzyl]-1-

methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

10 *trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-*

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

15 *pyrrolo[2,3-b]pyridin-6-karboksamid;*

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-metoksybenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-II);

20 *Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-*

pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

25 *b]pyridin-6-karboksamid (Isomer-II);*

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

30 *cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(3-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-*

b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-

5 pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-II);

10 *Racemisk cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-pyrrolo[2,3-

b]pyridin-6-karboksamid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-pyrrolo[2,3-

15 b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

20 *trans*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-

methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-1H-

25 pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-

methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid

30 *trans*-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-1H-

pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);

(3*S*,4*S*)-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-1H-

- pyrrolo[2,3-b]pyridin-6-karboksamid;
- (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 5 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-klorpyridin-5-ylmethyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmethyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 10 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-5-ylmethyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-1-methyl-(6-metylpyridin-3-ylmethyl)-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 15 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-metoksybenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2'-fluor-[2,5]bipyridinyl-5-ylmethyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 20 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2,3-difluorbenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-metyl-4-pyridinylmethyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 25 *cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-I);
- cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid (Isomer-II);
- Racemisk cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- 30 (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorbenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-metoksybenzyl)-1-methyl-2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
- (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-(2-metylpyridin-5-ylmethyl)-1-methyl-

- 2,3-dihydro-1H-pyrrolo[2,3-b]pyridin-6-karboksamid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
5 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-klorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-klorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
10 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(3-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(3-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
15 N-[(1S,2S)-2-hydroksysykloheksyl]-4-[4-(1-metyl-1H-pyrazol-4-yl)-benzyl]-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-[4-(1-metyl-1H-pyrazol-4-yl)-benzyl]-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
20 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-5-ylmetyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-5-ylmetyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
25 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-metoksybenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-metoksybenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
30 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmetyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(2-fluorpyridin-4-ylmetyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
35 N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-7-metyl-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-4-(4-fluorbenzyl)-7-etil-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

5 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

10 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II)

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

15 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

20 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

25 tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-[4-(tiazol-4-yl)benzyl]-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

trans-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

30 *Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-

- tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-
- 5 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);
- Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
- cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);
- 10 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-
- 15 tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-fluorbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);
- 20 *Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);
- Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-
- 25 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;
- cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);
- cis*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);
- 30 *Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);
- trans*-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

5 tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

cis-N-(3-hydroksytetrahydropyran-4-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

10 *cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

15 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

20 *Racemisk cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

25 tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

30 *trans*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-fluorobenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

5 tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-I);

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamidhydroklorid (Isomer-II);

10 *Racemisk cis*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin- 2-karboksamid;

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

cis-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

15 tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

Racemisk trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin- 2-karboksamid;

trans-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-I);

20 *trans*-N-(4-hydroksytetrahydropyran-3-yl)-4-(4-pyrazol-1-ylbenzyl)-5,6,7,8-

tetrahydro[1,7]naftyridin-2-karboksamid (Isomer-II);

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(4-fluorbenzyl)-2,3-dihydro-[1,4]dioksino[2,3-

b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(4-metoksybenzyl)-2,3-dihydro-

25 [1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-klorpyridin-5-ylmetyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-[4-(1-metyl-1H-pyrazol-4-yl)-benzyl]-2,3-

dihydro-[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

30 N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2,3-difluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(1-metyl-1H-pyrazol-4-ylmetyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-[4-(pyrazol-1-yl)benzyl]-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-metylpyridin-5-ylmethyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-fluorpyridin-5-ylmethyl)-2,3-dihydro-

5 [1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-fluorpyridin-4-ylmethyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid (Isomer-II);

10 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid (Isomer-II);

Racemisk cis-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

15 [1,4]dioksino[2,3-b]pyridin-6-karboksamid (Isomer-I);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid (Isomer-I);

20 (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-metoksybenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(2-klorpyridin-5-ylmethyl)-2,3-dihydro-

25 [1,4]dioksino[2,3-b]pyridin-6-karboksamid;

(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(2-metylpyridin-5-ylmethyl)-2,3-

dihydro-[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-fluorbenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

30 *Racemisk cis*-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-metoksybenzyl)-2,3-dihydro-

[1,4]dioksino[2,3-b]pyridin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-

b][1,4]oksazin-6-karboksamid;

N-[(1S,2S)-2-hydroksysykloheksyl]-8-(3-fluorbenzyl)-4-metyl-2H-pyrido[3,2-

- b][1,4]oksazin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-8-[4-(1-metyl-1H-pyrazol-4-yl)benzyl]-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-fluorpyridin-4-ylmetyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- trans-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid (Isomer-I);
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- trans-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid (Isomer-II);
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid (Isomer-II);
- Racemisk trans*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- cis-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid (Isomer-I);
- cis-N-(3-hydroksytetrahydropyran-4-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid (Isomer-II);
- N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-klorpyridin-5-ylmetyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]oksazin-6-karboksamid;
- N-[(1S,2S)-2-hydroksysykloheksyl]-8-(2-metylpyridin-5-ylmetyl)-4-metyl-2H-

pyrido[3,2-b][1,4]okszin-6-karboksamid;

N-[(1S,2S)-2-hydroksyloheksyl]-8-[4-pyrazol-1-ylbenzyl]-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

5 N-[(1S,2S)-2-hydroksyloheksyl]-4-metyl-8-(1-metyl-1H-pyrazol-4-ylmethyl)-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

10 (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-fluorbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-metoksybenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

15 (3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-8-(4-pyrazol-1-ylbenzyl)-4-metyl-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-4-metyl-8-(1-metyl-1H-pyrazol-4-ylmethyl)-2H-pyrido[3,2-b][1,4]okszin-6-karboksamid;

N-[(1S,2S)-2-hydroksyloheksyl]-7-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid;

20 *Racemisk cis*-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid;

cis-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid (Isomer-I);

25 *cis*-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid (Isomer-II);

Racemisk trans-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid;

trans-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid (Isomer-I);

30 *trans*-N-(3-hydroksytetrahydropyran-4-yl)-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid (Isomer-II);

N-[(1S,2S)-2-hydroksyloheksyl]-7-(2-klorpyridin-5-ylmethyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid;

Racemisk cis-N-(4-hydroksytetrahydropyran-3-yl)-7-(4-metoksybenzyl)-1-metyl-1H-

- pyrrolo[3,2-b]pyridin-5-karboksamid;
(3S, 4S)-N-(4-hydroksytetrahydropyran-3-yl)-7-(4-fluorbenzyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid; og
(3S,4S)-N-(4-hydroksytetrahydropyran-3-yl)-7-(4-metoksybenzyl)-1-metyl-1H-pyrrolo[3,2-b]pyridin-5-karboksamid;
eller et farmasøytisk akseptabelt salt derav.
- 5 5. Farmasøytisk sammensetning omfattende forbindelsen av formel (I) eller et farmasøytisk akseptabelt salt derav ifølge et hvilket som helst av krav 1 til 4 og farmasøytisk akseptable hjelpestoffer.
- 10 6. Den farmasøytiske sammensetningen ifølge krav 5 for anvendelse i behandlingen av sykdom eller lidelse mediert av muskarin M1-reseptor, hvori sykdommen eller lidelsen velges fra gruppen som består av kognitive lidelser, smerte eller søvnlidelse.
- 15 7. Kombinasjon omfattende forbindelsen ifølge et hvilket som helst av krav 1 til 4 med ett eller flere terapeutiske midler valgt fra acetylkolinesteraseinhibitorer og NMDA-reseptorantagonist.
- 20 8. Kombinasjonen ifølge krav 7, hvori de terapeutiske midlene velges fra galantamin, rivastigmin, donepezil, takrin og memantin.
- 25 9. Forbindelse av formel (I) eller et farmasøytisk akseptabelt salt derav ifølge et hvilket som helst av kravene 1 til 4 for anvendelse i en fremgangsmåte for behandling av sykdom eller lidelse mediert av muskarin M1-reseptor, hvori sykdommen eller lidelsen velges fra gruppen som består av kognitive lidelser, smerte eller søvnlidelse.
- 30 10. Forbindelsen for anvendelse ifølge krav 9, hvori den kognitive lidelsen velges fra gruppen som består av demens ved Alzheimers sykdom, demens ved Parkinsons sykdom, demens ved Huntingtons sykdom, demens assosiert med Downs syndrom, demens assosiert med Tourettes syndrom, demens assosiert med postmenopause, frontotemporal demens, demens med Lewy-legemer, vaskulær demens, demens ved HIV, demens ved Creutzfeldt-Jakobs sykdom, stoffindusert vedvarende demens, demens ved Picks sykdom, demens ved schizofreni, senil demens og demens ved generelle medisinske tilstander.

11. Forbindelsen av formel (I) ifølge et hvilket som helst av krav 1 til 4, for anvendelse ved behandling av sykdom eller lidelse valgt fra kognitive lidelser, smerte og søvnlidelse.