



(12) Translation of
European patent specification

(11) NO/EP 3190116 B1

NORWAY

(19) NO
(51) Int Cl.
C07D 513/04 (2006.01)
A61K 31/506 (2006.01)
A61P 11/06 (2006.01)
A61P 13/12 (2006.01)
A61P 17/00 (2006.01)
A61P 17/14 (2006.01)
A61P 29/00 (2006.01)
A61P 35/00 (2006.01)
A61P 37/06 (2006.01)
A61P 37/08 (2006.01)
A61P 43/00 (2006.01)

Norwegian Industrial Property Office

(45)	Translation Published	2020.10.12
(80)	Date of The European Patent Office Publication of the Granted Patent	2020.08.05
(86)	European Application Nr.	15838466.9
(86)	European Filing Date	2015.09.02
(87)	The European Application's Publication Date	2017.07.12
(30)	Priority	2014.09.02, JP, 2014177969
(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 Validation States:	MA
(73)	Proprietor	Nippon Shinyaku Co., Ltd., 14, Kisshoin Nishinosho Monguchicho Minami-ku, Kyoto-shiKyoto 601-8550, Japan
(72)	Inventor	SHIBA, Yoshinobu, c/o NIPPON SHINYAKU CO. LTD.14 Kisshoin Nishinosho MonguchichoMinami-ku, Kyoto-shiKyoto 601-8550, Japan AKIYAMA, Satoshi, c/o NIPPON SHINYAKU CO. LTD.14 Kisshoin Nishinosho MonguchichoMinami-ku, Kyoto-shiKyoto 601-8550, Japan
(74)	Agent or Attorney	BRYN AARFLOT AS, Stortingsgata 8, 0161 OSLO, Norge

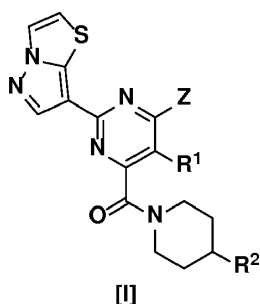
(54)	Title	PYRAZOLOTHIAZOLE COMPOUND AND MEDICINE COMPRISING SAME
(56)	References	
	Cited:	WO-A1-2013/025628 WO-A1-2010/070060 WO-A2-2007/041130

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. Pyrazolotiazolforbindelse representert ved formel [I]:

[Formula 1]



5 hvor,

R^1 er hydrogen, alkyl eller alkoksy;

Z er $-OR^3$ eller $-NR^4R^5$;

hvor

R^3 er alkyl, alkyl substituert med sykloalkyl, sykloalkyl, aryl eller heteroaryl;

10 R^4 er hydrogen eller alkyl;

R^5 er alkyl, sykloalkyl eller mettet heterosyklisk gruppe, nevnte alkyl og sykloalkyl i R^5 er eventuelt substituert med én eller to grupper valgt fra gruppen bestående av de følgende (1) til (6):

(1) hydroksy,

15 (2) alkoksy, og difluoralkoksy,

(3) sykloalkyl, sykloalkyl substituert med (difluoralkoksy)alkyl, og sykloalkyl substituert med alkoksyalkyl,

(4) mettet heterosyklisk gruppe eventuelt substituert med (difluoralkoksy)alkyl,

(5) aryl, aryl substituert med halogen, og aryl substituert med alkoksy, og

20 (6) nitril, og

nevnte mettede heterosykliske gruppe i R^5 er eventuelt substituert med én eller to grupper valgt fra gruppen bestående av de følgende (1) til (3):

(1) alkyl,

(2) alkylkarbonyl, og

25 (3) alkoksykarbonyl;

R^2 er hydroksy eller $-NHR^8$,

hvor

R^8 er heteroaryl, heteroaryl substituert med halogen, heteroaryl substituert med alkyl, $-COL^1$, $-COOL^2$ eller $-SO_2L^3$, nevnte L^1 er en gruppe valgt fra gruppen bestående av de

30 følgende (1) til (5):

(1) alkyl, monohaloalkyl, dihaloalkyl, trihaloalkyl, og alkyl substituert med alkoksy,

- (2) sykloalkyl,
 (3) aryl,
 (4) heteroaryl, og
 (5) dialkylamino, og sykloalkylamino,
 5 nevnte L^2 er en gruppe valgt fra gruppen bestående av de følgende (1) til (3):
 (1) alkyl, monohaloalkyl, dihaloalkyl, trihaloalkyl, og alkyl substituert med alkoksy,
 (2) sykloalkyl, og
 (3) dialkylaminoalkyl, og
 nevnte L^3 er alkyl eller sykloalkyl,
 10 eller farmasøytisk akseptabelt salt derav, eller solvat derav.

2. Pyrazolotiazolforbindelse ifølge krav 1 eller farmasøytisk akseptabelt salt derav, eller solvat derav, hvor R^1 er hydrogen.

- 15 3. Pyrazolotiazolforbindelse ifølge krav 2 eller farmasøytisk akseptabelt salt derav, eller solvat derav, hvor
 Z er $-NR^4R^5$;
 hvori
 R^4 er hydrogen,
 20 R^5 er alkyl eller sykloalkyl,
 nevnte alkyl og sykloalkyl i R^5 er eventuelt substituert med en gruppe valgt fra gruppen bestående av de følgende (1) til (3):
 (1) hydroksy,
 (2) alkoksy, og
 25 (3) sykloalkyl,
 R^2 er hydroksy eller $-NHR^8$,
 R^8 er heteroaryl, heteroaryl substituert med halogen, heteroaryl substituert med alkyl, $-COL^1$ eller $-COOL^2$,
 nevnte L^1 er en gruppe valgt fra gruppen bestående av de følgende (1) til (4):
 30 (1) alkyl, monohaloalkyl, dihaloalkyl, trihaloalkyl, og alkyl substituert med alkoksy,
 (2) sykloalkyl,
 (3) aryl, og
 (4) heteroaryl, og
 nevnte L^2 er alkyl, monohaloalkyl, dihaloalkyl, trihaloalkyl, alkyl substituert med
 35 alkoksy eller sykloalkyl.

4. Pyrazolotiazolforbindelse ifølge krav 3 eller farmasøytisk akseptabelt salt derav, eller solvat derav, hvor

R⁵ er alkyl, alkyl substituert med hydroksy, alkyl substituert med syklopropyl eller alkyl substituert med alkoksy, og

5 R² er -NHR⁸.

5. Pyrazolotiazolforbindelse ifølge krav 3 eller farmasøytisk akseptabelt salt derav, eller solvat derav, hvor

R⁵ er alkyl som har 2 til 6 karbon atoms eller alkyl substituert med syklopropyl,

10 R² er -NHR⁸,

R⁸ er -COL¹ eller -COOL²,

nevnte L¹ er alkyl som har 2 til 6 karbon atoms eller syklopropyl,

og

nevnte L² er alkyl eller syklopropyl.

15

6. Pyrazolotiazolforbindelse ifølge krav 1, som er hvilken som helst av de følgende (1) til (135):

(1) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

20 (2) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)acetamid,

(3) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

25 (4) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)acetamid,

(5) N-(1-{[6-{[(1S,2S)-2-(difluormetoksy)syklopentyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

30 (6) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)acetamid,

(7) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

(8) N-[1-{[6-{[(1-{[(difluormetoksy)metyl]syklopropyl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl]syklopropankarboksamid,

35 (9) N-[1-{[6-{[(1-{[(difluormetoksy)metyl]syklobutyl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl]syklopropankarboksamid,

- (10) N-[1-({6-[(1-{(difluormetoksy)metyl}syklopentyl)metyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]syklopropankarboksamid,
- (11) N-[1-({6-[(4-{(difluormetoksy)metyl}tetrahydro-2H-pyran-4-yl)metyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]syklopropankarboksamid,
- (12) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (13) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)acetamid,
- (14) N-(1-{[6-{[(1S,2S)-2-(difluormetoksy)syklopentyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (15) N-[1-({6-[(2,2-dimetylpropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]syklopropankarboksamid,
- (16) N-(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (17) N-(1-{[6-{[(2S)-1-(difluormetoksy)propan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (18) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2,2-difluoracetamid,
- (19) N-(1-{[6-{[(1S,2S)-2-metoksysisyklopentyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (20) [6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl](4-hydroksypiperidin-1-yl)metanon,
- (21) 1-fluoro-2-metylpropan-2-yl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (22) metyl (1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (23) [6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl](4-hydroksypiperidin-1-yl)metanon,
- (24) metyl (1-{[6-{[(2R)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (25) metyl (1-{[6-{[(2S)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (26) metyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,

- (27) etyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (28) propan-2-yl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 5 (29) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)benzamid,
- (30) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)pyridin-3-karboksamid,
- (31) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)tiofen-2-karboksamid,
- 10 (32) N-(1-{[6-{[(1S)-1-syklopropyletyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (33) 1-syklopropyl-3-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)urea,
- 15 (34) [6-{[(1S)-1-syklopropyletyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(pyrimidin-2-ylamino)piperidin-1-yl]metanon,
- (35) N-(1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (36) N-[1-(1-{[6-[(1-metylsyklopropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 20 (37) N-[1-(1-{[6-[(1-metoksy-2-metylpropan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (38) metyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 25 (39) etyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (40) propan-2-yl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (41) N-(1-{[6-{[(1S)-1-syklopropyletyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)benzamid,
- 30 (42) N-(1-{[6-(syklopropylmetoksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (43) N-[1-(1-{[6-[(3,3-dimetylbutan-2-yl)oksy]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 35 (44) N-(1-{[6-(syklobutyloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

- (45) N-(1-{[6-(syklopentyloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (46) N-(1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 5 (47) N-[1-({6-[(1-hydroksy-2-metylpropan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]syklopropankarboksamid,
- (48) [6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(1,2-oksazol-3-ylamino)piperidin-1-yl]metanon,
- (49) [6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(1,3-tiazol-2-ylamino)piperidin-1-yl]metanon,
- 10 (50) [6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]{4-[(3-metyl-1,2-oksazol-5-yl)amino]piperidin-1-yl}metanon,
- (51) N-(1-{[6-{[(2S)-1-hydroksy-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 15 (52) [6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl](4-hidroksypiperidin-1-yl)metanon,
- (53) metyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (54) propan-2-yl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 20 (55) metyl [1-({6-[(1-hydroksy-2-metylpropan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (56) [6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl](4-hidroksypiperidin-1-yl)metanon,
- 25 (57) metyl (1-{[6-{[(2S)-1-hydroksy-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (58) metyl [1-({6-[(3,3-dimetylbutan-2-yl)oksy]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (59) metyl (1-{[6-(syklobutyloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 30 (60) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)metansulfonamid,
- (61) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropanesulfonamid,
- 35 (62) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)etansulfonamid,

- (63) N-(1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2-metylpropanamid,
- (64) N-(1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2,2-difluoracetamid,
- 5 (65) etyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (66) [6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(pyridin-2-ylamino)piperidin-1-yl]metanon,
- (67) etyl (1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 10 (68) [6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(1,3-tiazol-2-ylamino)piperidin-1-yl]metanon,
- (69) [6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(pyrimidin-2-ylamino)piperidin-1-yl]metanon,
- 15 (70) metyl [1-{[6-{[(2-metylbutan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl]karbamat,
- (71) (4-hydroksypiperidin-1-yl)[6-(pentan-3-ylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]metanon,
- (72) propyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 20 (73) propyl (1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (74) propyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 25 (75) propyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (76) propyl (1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (77) metyl [1-{[6-{[(2,2-dimetylpropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl]karbamat,
- 30 (78) 2-metoksyetyl (1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (79) 2-metoksyetyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 35 (80) 2-metoksyetyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,

- (81) 2-metoksyetyl (1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (82) N-(1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2-metoksyacetamid,
- 5 (83) N-(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2-metoksyacetamid,
- (84) metyl [1-(1-{[6-{[1-(metoksymetyl)syklopropyl]metyl}(metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (85) 2,2-difluoroetyl (1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 10 (86) 2,2-difluoroetyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (87) 2,2-difluoroetyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 15 (88) 2,2-difluoroetyl (1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (89) tert-butyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (90) 2-metoksyetyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 20 (91) 2-(dimetylamino)etyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (92) 2,2,2-trifluoroetyl (1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 25 (93) 2,2,2-trifluoroetyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (94) 2-metoksy-N-(1-{[6-(pentan-3-ylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)acetamid,
- (95) N-(1-{[6-(2-etylbutoksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 30 (96) metyl (1-{[6-(pentan-3-yloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (97) metyl (1-{[6-(pentan-3-ylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 35 (98) N-[1-(1-{[6-(2-etylbutyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,

- (99) N-(1-{[6-(pentan-3-yloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (100) metyl [1-(6-[metyl(pentan-3-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- 5 (101) metyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (102) N-(1-{[6-(2-etylbutoksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)propanamid,
- (103) N-(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)propanamid,
- 10 (104) N-[1-(6-[metyl(pentan-3-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]propanamid,
- (105) [6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]{4-[(3-fluoropyridin-2-yl)amino]piperidin-1-yl}metanon,
- 15 (106) N-[1-(6-{[(2-metoksy-2-metylpropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]propanamid,
- (107) (4-hydroksypiperidin-1-yl){6-[metyl(pentan-3-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}metanon,
- (108) N-(1-{[6-{[(2R)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)propanamid,
- 20 (109) N-(1-{[6-{[(2R)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (110) N-(1-{[6-{[(2S)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 25 (111) N-(1-{[6-(pentan-3-ylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (112) metyl [1-(6-{[(2S)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (113) metyl [1-(6-{[(2R)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- 30 (114) N-[1-(6-{[(1-metylsyklopropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]propanamid,
- (115) [6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]{4-[(5-fluoropyridin-2-yl)amino]piperidin-1-yl}metanon,
- 35 (116) 2-metyl-N-[1-(6-{[(2-metylbutan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]propanamid,

- (117) N-[1-(6-[(2S)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]propanamid,
- (118) metyl [1-(6-[tert-butyl(metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- 5 (119) syklopropyl (1-{6-[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (120) syklopropyl (1-{6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (121) 2,2-difluoro-N-(1-{6-[(2R)-3-metylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]acetamid,
- 10 (122) 3-[1-(6-[(2,2-dimetylpropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]-1,1-dimetylurea,
- (123) 3-(1-{6-[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]-1,1-dimetylurea,
- 15 (124)propan-2-yl [1-(6-[(3-metyloksetan-3-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (125) metyl [1-(6-[(disyklopropylmetyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (126) metyl (1-{6-phenoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- 20 (127) tert-butyl 4-{6-({4-[(metoksykarbonyl)amino]piperidin-1-yl)karbonyl)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]amino}piperidine-1-carboksylate,
- (128) metyl (1-{6-(piperidin-4-ylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- 25 (129) metyl [1-(6-[(1-cyanosyklopropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (130) metyl (1-{6-[(1S)-1-syklopropyletyl]amino}-5-metoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (131) metyl (1-{6-[(2R)-3,3-dimetylbutan-2-yl]amino}-5-metoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- 30 (132) metyl [1-(6-[(2S)-butan-2-ylamino]-5-metoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- (133) metyl (1-{6-[(1S)-1-syklopropyletyl]amino}-5-etoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat,
- 35 (134) metyl (1-{6-[(2R)-3,3-dimetylbutan-2-yl]amino}-5-etoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl)karbonyl]piperidin-4-yl]karbamat, og

(135) metyl (1-{[2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)-6-(pyridin-3-yloksy)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
 eller farmasøytisk akseptabelt salt derav, eller solvat derav.

5 7. Pyrazolotiazolforbindelse ifølge krav 1 som er hvilken som helst av de følgende (1) til (58):

- (1) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (2) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 10 (3) N-(1-{[6-{[(1S,2S)-2-(difluormetoksy)syklopentyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (4) N-(1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 15 (5) N-[1-({6-[(1-{[(difluormetoksy)metyl]syklopropyl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- (6) N-[1-({6-[(1-{[(difluormetoksy)metyl]syklobutyl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- 20 (7) N-[1-({6-[(1-{[(difluormetoksy)metyl]syklopentyl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- (8) N-[1-({6-[(1-{[(difluormetoksy)metyl]tetrahydro-2H-pyran-4-yl}metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- 25 (9) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-5-metyl-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (10) N-(1-{[6-{[(1S,2S)-2-(difluormetoksy)syklopentyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (11) N-[1-({6-[(2,2-dimetylpropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- 30 (12) N-(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (13) N-(1-{[6-{[(2S)-1-(difluormetoksy)propan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 35 (14) metyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,

- (15) etyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (16) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)benzamid,
- 5 (17) N-(1-{[6-{[(1S)-1-syklopropyletyl](metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (18) propan-2-yl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (19) N-(1-{[6-(syklopropylmetoksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 10 (20) N-[1-({6-[(3,3-dimetylbutan-2-yl)oksy]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- (21) N-(1-{[6-(syklobutyloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 15 (22) N-[1-({6-[(1-hidroksy-2-metylpropan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl)syklopropankarboksamid,
- (23) [6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(1,3-tiazol-2-ylamino)piperidin-1-yl]metanon,
- (24) N-(1-{[6-{[(2S)-1-hidroksy-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 20 (25) metyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (26) propan-2-yl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 25 (27) metyl [1-({6-[(1-hidroksy-2-metylpropan-2-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (28) [6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl](4-hidroksypiperidin-1-yl)metanon,
- (29) metyl (1-{[6-{[(2S)-1-hidroksy-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 30 (30) metyl [1-({6-[(3,3-dimetylbutan-2-yl)oksy]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (31) metyl (1-{[6-(syklobutyloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 35 (32) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropanesulfonamid,

- (33) N-(1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)etansulfonamid,
- (34) etyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 5 (35) [6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl][4-(pyridin-2-ylamino)piperidin-1-yl]metanon,
- (36) propyl (1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (37) N-(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)-2-metoksyacetamid,
- 10 (38) 2,2-difluoroetyl (1-{[6-{[(1S)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (39) 2,2-difluoroetyl (1-{[6-{[(2S)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 15 (40) tert-butyl (1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (41) 2-metoksyetyl(1-{[6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (42) 2-(dimetylamino)etyl(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 20 (43) 2,2,2-trifluoroetyl(1-{[6-{[(1R)-1-syklopropyletyl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (44) 2,2,2-trifluoroetyl(1-{[6-{[(2R)-3,3-dimetylbutan-2-yl]amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 25 (45) metyl(1-{[6-(pentan-3-yloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (46) N-[1-(1-{[6-(2-etylbutyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (47) N-(1-{[6-(pentan-3-yloksy)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 30 (48) metyl[1-(1-{[6-(2S)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- (49) metyl[1-(1-{[6-(2R)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)karbamat,
- 35 (50) N-[1-(1-{[6-(1-metylsyklopropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl]karbonyl}piperidin-4-yl)propanamid,

- (51) metyl[1-({6-[tert-butyl(metyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (52) syklopropyl(1-{{6-(tert-butylamino)-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- 5 (53) propan-2-yl[1-({6-[(3-metyloksetan-3-yl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (54) metyl[1-({6-[(1-cyanosyklopropyl)amino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (55) metyl[1-({6-[(2S)-butan-2-ylamino]-5-metoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- 10 (56) metyl(1-{{6-{{(1S)-1-syklopropyletyl}amino}-5-etoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- (57) metyl(1-{{6-{{(2R)-3,3-dimetylbutan-2-yl}amino}-5-etoksy-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat, og
- 15 (58) metyl(1-{{2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)-6-(pyridin-3-yloksy)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,
- eller farmasøytisk akseptabelt salt derav, eller solvat derav.

8. Pyrazolotiazolforbindelse ifølge krav 1 som er hvilken som helst av de følgende (1) til (8):

20

- (1) N-(1-{{6-{{(1S)-1-syklopropyletyl}amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl)syklopropankarboksamid,
- (2) N-(1-{{6-{{(2R)-3,3-dimetylbutan-2-yl}amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 25 (3) metyl(1-{{6-{{(1S)-1-syklopropyletyl}amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl]karbamat,
- (4) etyl(1-{{6-{{(1S)-1-syklopropyletyl}amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl]karbamat,
- (5) N-(1-{{6-{{(1S)-1-syklopropyletyl}(metyl)amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl)syklopropankarboksamid,
- 30 (6) propan-2-yl(1-{{6-{{(1S)-1-syklopropyletyl}amino}-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl}piperidin-4-yl]karbamat,
- (7) metyl[1-({6-[(2S)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat, og
- 35 (8) metyl[1-({6-[(2R)-butan-2-ylamino]-2-(pyrazolo[5,1-b][1,3]tiazol-7-yl)pyrimidin-4-yl}karbonyl)piperidin-4-yl]karbamat,

eller farmasøytisk akseptabelt salt derav, eller solvat derav.

5 9. Farmasøytisk sammensetning som omfatter en pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 som et virkestoff.

10. Pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 for anvendelse som en JAK1-hemmer.

10 11. Pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 for anvendelse som et terapeutisk middel for en inflammatorisk sykdom.

15 12. Pyrazolotiazolforbindelse for anvendelse ifølge krav 11, hvor den inflammatoriske sykdommen er atopisk dermatitt, eksem, bronkial astma, eosinofil lungebetennelse, kronisk obstruktiv lungesykdom, allergisk rhinitt, eosinofil sinusitt, nesepolypp, ankyloserende spondylitt eller eosinofil øsofagitt.

20 13. Pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 for anvendelse i behandling av en autoimmun sykdom.

25 14. Pyrazolotiazolforbindelse for anvendelse ifølge krav 13, hvor den autoimmune sykdommen er revmatoid artritt, psoriasisartritt, juvenil artritt, Castlemans sykdom, systemisk lupus erythematosus, Sjögrens syndrom, inflammatorisk tarmsykdom, psoriasis, sklerodermi, tørt øye, Takayasu arteritt, mikroskopisk polyangiitt, granulomatose med polyangiitt, eosinofil granulomatose med polyangiitt eller neuromyelitis optica.

30 15. Pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 for anvendelse som et terapeutisk middel for en proliferativ sykdom.

35 16. Pyrazolotiazolforbindelse for anvendelse ifølge krav 15, hvor den proliferative sykdommen er solide kreftformer, blodkreft, ondartet lymfekreft, myeloproliferative sykdommer, multippelt myelom, pulmonal fibrose eller eosinofili.

17. Pyrazolotiazolforbindelse eller farmasøytisk akseptabelt salt derav eller solvat derav ifølge hvilket som helst av kravene 1 til 8 for anvendelse i behandling av diabetisk nefropati, alopecia areata, avvisning av benmargstransplantasjon eller avvisning av organtransplantasjon.