KORRIGERT UTGAVE / CORRECTED VERSION

(12) **Translation of European patent specification**

(11) **NO/EP 2858989 B9**

NORWAY

(19) NO

(51) Int Cl.

C07D 403/04 (2006.01)
A61K 31/517 (2006.01)
C07D 239/70 (2006.01)

Norwegian Industrial Property Office

(45)	Translation Published	2020.09.21
(80)	Date of The European Patent Office Publication of the Granted Patent	2020.05.06
(86)	European Application Nr.	13726362.0
(86)	European Filing Date	2013.05.17
(87)	The European Application's Publication Date	2015.04.15
(30)	Priority	2012.05.17, US, 201261648536 P
(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
	Correction in the Gazette	2021.07.05
	Correction in EPO	2021.04.14
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(54) Title **AMORPHOUS FORM OF AN AKT INHIBITING PYRIMIDINYL-CYCLOPENTANE COMPOUND, COMPOSITIONS AND METHODS THEREOF**

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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:

[EP2858989]

Patentkrav

1. Amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

2. Farmasøytisk formulering omfattende amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

3. Formuleringen ifølge krav 2, ytterligere omfattende utfelt silisium, røkt silisium eller amorft silisium.

4. Formuleringen ifølge krav 3, ytterligere omfattende mikrokrystallinsk cellulose.

5. Formuleringen ifølge krav 4, ytterligere omfattende antioksidant valgt fra BHA, BHT eller propylgallat.

6. Formuleringen ifølge krav 5, ytterligere omfattende polyvinylpyrrolidon.

7. Formuleringen ifølge krav 2, omfattende 100 til 400 mg (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on.

8. Formuleringen ifølge krav 2, hvori formuleringen er en tablett for oral levering.

9. Formuleringen ifølge krav 2, ytterligere omfattende polyvinylpyrolidon, butylert hydroksylanisol, krysskarmellosenatrium, røkt silisium, mikrokrystallinsk cellulose og stearinsyre.

10. Fremgangsmåte for å tilveiebringe amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-l-yl)-3-(isopropylamino)propan-1-on monohydroklorid, omfattende å sprøytetørke en

blanding omfattende (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid eller et solvat derav og løsemiddel.

11. Fremgangsmåte for å tilveiebringe amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid, omfattende å bringe en blanding omfattende (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid eller et solvat derav i kontakt med en gass.

12. Fremgangsmåten ifølge krav 11, hvori gassen omfatter nitrogen og vann.

13. Tablett for oral levering omfattende amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

14. Tabletten ifølge krav 13, omfattende 100 mg (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

15. Tabletten ifølge krav 13, omfattende 400 mg (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-l-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

16. Det amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet ifølge krav 1, som utviser en glassovergang i et differensialskanningskalorimetri (DSC) -spektrum, hvori glassovergangen er tydelig i en andre varmesyklus etter fjerning av løsemiddel i den første varmesyklusen.

17. Det amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet ifølge krav 16, hvori glassovergangens starttemperatur er 114 °C.

18. Sammensetning bestående av amorft (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-l-yl)-3-(isopropylamino)propan-1-on monohydroklorid.

19. Fremgangsmåten ifølge krav 10, hvori løsemiddelet er vann eller etanol.

20. Fremgangsmåten ifølge krav 19, hvori det sprøytetørkede amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet omfatter 0,01 til 2,5 % restløsemiddel.

21. Fremgangsmåten ifølge krav 10, hvori solvatet er et etylacetatsolvat, løsemiddelet er vann, og det sprøytetørkede amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet omfatter mindre enn 1,0 % vekt/vekt vann og 0,25 % vekt/vekt eller mindre etylacetat.

22. Fremgangsmåten ifølge krav 10, ytterligere omfattende å tørke det sprøytetørkede amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet.

23. Fremgangsmåten ifølge krav 22, hvori det sprøytetørkede amorfe (S)-2-(4-klorfenyl)-1-(4-((5R,7R)-7-hydroksy-5-metyl-6,7-dihydro-5H-syklopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)propan-1-on monohydrokloridet omfatter mindre enn 0,5 % løsemiddel etter tørkingen.