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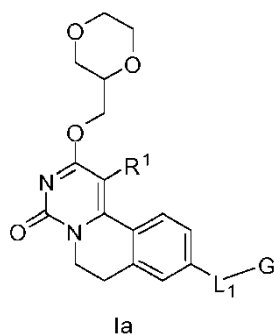
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(54)	Title	NOVEL DIHYDROPYRIMIDINOISOQUINOLINONES AND PHARMACEUTICAL COMPOSITIONS THEREOF FOR THE TREATMENT OF INFLAMMATORY DISORDERS
(56)	References Cited:	WO-A2-2007/027661 JP-A- 2011 088 847

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 med formel Ia:



hvor

R¹ er H, Me eller halogen;

L₁ er fraværende eller er -O-, -S- eller -NR^{4a}-;

G er

R²,

-W-L₂-R², eller

-W-L₃-R³;

W er C₁₋₄ alkylen, C₂₋₄ alkenylen som har én dobbeltbinding eller C₂₋₄ alkynylen som har én trippelbinding;

L₂ er fraværende eller er -O-;

R² er

- H,

- C₁₋₈ alkyl, eventuelt substitueret med én til tre grupper uafhængig valgt fra

◦ OH,

◦ halogen,

◦ CN,

◦ C₁₋₆ alkoksy,

- C₃₋₇ cykloalkyl,
 - 4-6 leddet heterocykloalkyl omfattende ett til tre heteroatomer uavhengig valgt fra S og O,
 - 5-6 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O og
 - o fenyl,
 - C₄₋₇ cykloalkenyl omfattende én dobbeltbinding,
 - 5-7 leddet heterocykloalkenyl omfattende én dobbeltbinding og ett til tre heteroatomer uavhengig valgt fra N, O og S,
 - C₃₋₇ cykloalkyl eventuelt substituert med én eller flere uavhengig valgte R⁵ grupper,
 - 4-10 leddet heterocykloalkyl omfattende én til to heteroatomer uavhengig valgt fra S og O, eventuelt substituert med én til tre uavhengig valgte R⁵ grupper,
 - 5-10 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O, eventuelt substituert med én til tre uavhengig valgte R⁶ grupper, eller
 - C₆₋₁₀ aryl eventuelt substituert med én eller flere uavhengig valgte R⁶ grupper;
- L³ er -NR^{4b}-;
- R³ er
- C₁₋₄ alkyl substituert med
 - C₆₋₁₀ aryl eventuelt substituert med én eller flere uavhengig valgte R⁷ grupper, eller
 - 5-10 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O, eventuelt substituert med én eller flere uavhengig valgte R⁷ grupper,
 - 5-10 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O, eventuelt substituert med én eller flere uavhengig valgte R⁷ gruppe, eller
 - C₆₋₁₀ aryl eventuelt substituert med én eller flere uavhengig valgte R⁷ grupper;
- hver R^{4a} og R^{4b} er uavhengig valgt fra H, C₁₋₄ alkyl og C₃₋₇ cykloalkyl;

R^5 er okso eller R^6 ;

R^6 er

- OH,
- halogen,
- $-\text{NO}_2$,
- C_{1-6} alkyl eventuelt substituert med én til tre grupper uavhengig valgt fra halogen og OH,
- C_{1-6} alkoksy eventuelt substituert med én til tre grupper uavhengig valgt fra halogen og OH,
- C_{3-7} cykloalkyl,
- $-\text{C}(=\text{O})\text{OR}^8$,
- $-\text{C}(=\text{O})\text{NR}^9\text{R}^{10}$,
- $-\text{NHC}(=\text{O})-\text{C}_{1-4}$ alkyl,
- $-\text{CN}$,
- fenyl,
- $-\text{O-fenyl}$,
- 4-7 leddet heterocykloalkyl omfattende ett til tre heteroatomer uavhengig valgt fra N, O og S, eller
- 5-6 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, O og S, eventuelt substituert med én eller flere uavhengig valgte C_{1-4} alkyl, C_{1-4} alkoksy, CN, halogen og $-\text{C}(=\text{O})\text{OR}^{11}$;

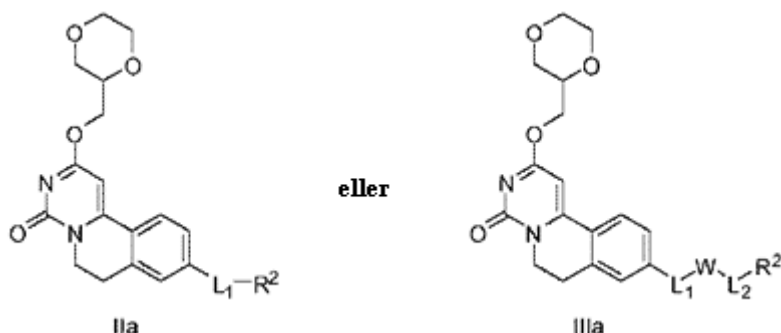
R^7 er C_{1-4} alkyl eller halogen; og

hver av R^8 , R^9 , R^{10} og R^{11} er uavhengig valgt fra H og C_{1-4} alkyl,

eller et farmasøytisk akseptabelt salt eller et solvat eller et solvat av det farmasøytisk akseptable saltet.

2. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 1, hvor R^1 er H.

3. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 1, hvor forbindelsen er i henhold til Formel IIa eller IIIa:



hvor L_1 , W, L_2 og R^2 er som beskrevet i krav 1.

4. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 3, hvor forbindelsen er i henhold til Formel IIa og L_1 er fraværende.

5. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 3, hvor forbindelsen er i henhold til Formel IIIa og L_1 er fraværende eller er -O-; W er C_{1-4} alkylen eller C_{2-4} alkenylen som har én dobbeltbinding.

6. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 3, hvor forbindelsen er i henhold til Formel IIIa og L_1 er fraværende; W er C_{2-4} alkynylen som har én trippelbinding; og L_2 og R^2 er som beskrevet i krav 1.

7. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 5 eller 6, hvor L_2 er fraværende.

8. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 3, hvor forbindelsen er i henhold til Formel IIIa, hvor L_1 og L_2 er fraværende, W er $-CH_2-CH_2-$, $-CH=CH-$ eller $-C\equiv C-$ og R^2 er som beskrevet i krav 1.

9. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 3-8, hvor R^2 er 5-10 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O, eventuelt substituert med én til tre uavhengig valgte R^6 grupper.

10. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 9, hvor R^6 er valgt fra OH, halogen, C_{1-6} alkyl, C_{1-6} alkyl substituert med én eller flere halogen, C_{1-6} alkoksy,

-CN, C₃₋₇ cykloalkyl, 4-7 leddet heterocykloalkyl omfattende ett til tre heteroatomer uavhengig valgt fra N, O og S og fenyl.

11. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 3-8 hvor R² er C₁₋₈ alkyl eventuelt substituert med én til tre grupper uavhengig valgt fra OH, halogen, CN, C₁₋₆ alkoksy, C₃₋₇ cykloalkyl, 4-6 leddet heterocykloalkyl omfattende ett til tre heteroatomer uavhengig valgt fra S og O, 5-6 leddet heteroaryl omfattende ett til tre heteroatomer uavhengig valgt fra N, S og O og fenyl.

12. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 3-8, hvor R² er C₃₋₇ cykloalkyl.

13. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 1, hvor forbindelsen er valgt fra:

9-allyloksy-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyridin-3-yl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyridin-4-yl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzonitril,

3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzonitril,

4-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzonitril,

[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yloksy]-acetonitril,

2-([1,4]dioksan-2-ylmetoksy)-9-(oksazol-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(pyridin-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3,5-diklor-fenyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-benzofuran-2-yl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-indol-1-karboksylysyre-tert-butylester,

2-([1,4]dioksan-2-ylmetoksy)-9-(1H-indol-2-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-metoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-trifluormetyl-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metyl-3H-imidazol-4-ylethynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(5-tert-butyl-[1,2,4]oksadiazol-3-ylmetoksy)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

5-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-pyridin-2-karboksylysyre-metylamid,

2-([1,4]dioksan-2-ylmetoksy)-9-pent-1-ynyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-pyridin-2-yl-etyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-pyrazin-2-yl-etyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1H-indol-5-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-metoksy-fenyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-metoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1H-indazol-5-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(4-metoksy-fenyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzamid,

5-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-2-fluor-benzamid,

N-{3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-fenyl} -acetamid,

9-cyklopropylethynyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1-hidroksy-cyklopentylethynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyrimidin-5-yl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cykloheks-1-enyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1-metyl-1H-indol-5-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-metyl-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyridin-2-ylethynyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-prop-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

5-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-pent-4-ynenitril,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-prop-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(4-metoksy-fenylethynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyridin-3-ylethynyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

4-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-N-metyl-benzamid,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-fenyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2-klor-fenyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(4-hidroksy-but-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(1,5-dimetyl-1H-pyrazol-3-ylmetoksy)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1-metyl-1H-pyrazol-3-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metyl-[1,2,4]oksadiazol-5-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(4-morfolin-4-yl-fenyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-4-fluor-benzamid,

3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-5-fluor-benzamid,

9-(3,3-dimetyl-but-1-ynyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyridin-4-ylethynyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metyl-isoksazol-5-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-3-metyl-but-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-metoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3,6-dihydro-2H-pyran-4-yl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

5-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-pyridin-2-karbonitril,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-isopropoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-etoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-morfolin-4-yl-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2,3-dimetoksy-fenyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3-klor-2-metoksy-pyridin-4-yl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-metyl-pyridin-4-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

3-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-isonikotinonitril,

9-(2,5-dimetoksy-fenyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3,4,5,6-tetrahydro-2H-[1,2']bipyridinyl-5'-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-etoksy-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2,6-dimetoksy-pyridin-3-yl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

4-[2-([1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihydro-4H-pyrimido[6,1-a]isokinolin-9-yl]-nikotinonitril,

9-tert-butoksymetyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(2-pyrrolidin-1-yl-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(6-pyrrolidin-1-yl-pyridin-3-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-fenyl-oksazol-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(5-tert-butyl-oksazol-2-ylmetoksy)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(5-cyklopropyl-[1,2,4]oksadiazol-3-ylmetoksy)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-etyl-[1,2,4]oksadiazol-3-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-metyl-[1,2,4]oksadiazol-3-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-isopropyl-[1,2,4]oksadiazol-3-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopentylethynyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cykloheksylethynyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metyl-but-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-heks-1-ynyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-[3-(benzyl-metyl-amino)-prop-1-ynyl]-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-5-metyl-heks-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-but-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopropyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-pent-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-4-metyl-pent-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-etyl-3-hidroksy-pent-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-3-fenyl-but-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3-benzylamino-prop-1-ynyl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-[(furan-2-ylmetyl)-amino]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1-etyl-1H-pyrazol-4-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-[1-(3-metyl-butyl)-1H-pyrazol-4-yl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(5-metyl-furan-2-yl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-heks-1-ynyl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

9-(3,5-dimetyl-1H-pyrazol-4-yl)-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1H-pyrazol-4-yl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(1-propyl-1H-pyrazol-4-yl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-[2-((R)-1-[1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihidro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzonitril,

2-[2-((S)-1-[1,4]dioksan-2-ylmetoksy)-4-okso-6,7-dihidro-4H-pyrimido[6,1-a]isokinolin-9-yl]-benzonitril,

9-(5-cyklopropyl-[1,2,4]oksadiazol-3-ylmetoksy)-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-etynyl-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-pyrimidin-2-ylethynyl-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-fenylamino-prop-1-ynyl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-3-pyridin-3-yl-prop-1-ynyl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopentyl-oksymetyl-2-([1,4]dioksan-2-ylmetoksy)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-4-metyl-pent-1-ynyl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopropylethynyl-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metyl-but-1-ynyl)-6,7-dihidro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-imidazol-1-yl-prop-1-ynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2-cyklopropyl-etyl)-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopentyloksymetyl-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-3-pyridin-3-yl-propyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-allyloksy-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-allyloksy-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-(tetrahydro-pyran-4-yloksymetyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-{3-[(pyridin-3-ylmetyl)-amino]-prop-1-ynyl}-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-pentyl-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopropylethynyl-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2-cyklopropyl-etyl)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(oxetan-3-yloksymetyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metyl-oxetan-3-ylmetoksymetyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2,2-dimetyl-butylamino)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-hydroksy-4-metyl-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-etyl-heksylamino)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-metoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-etoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopropylmetoksy-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-fluor-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-[3-(2-metoksy-etoksy)-prop-1-ynyl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-[3-(2-etoksy-etoksy)-prop-1-ynyl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-[3-(2-fluor-etoksy)-prop-1-ynyl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2,2-dimetyl-propoksymetyl)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cykloheksyloksymetyl-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopropylmetoksymetyl-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(tetrahydro-pyran-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-hydroksy-butyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(4,4-dimetyl-pentyloksy)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-4-metyl-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3-cyklopropyl-propoksy)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cykloheksylamino-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-hidroksy-4,4-dimetyl-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-cyklopentylmetoksymetyl-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-butyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-fenylamino-propyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(4-hidroksy-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(4-hidroksy-butyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(Cykloheksyl-metyl-amino)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(Cykloheksylmetyl-amino)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-[(tetrahydro-pyran-4-ylmetyl)-amino]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-etyl-3-hidroksy-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-hydroksy-3-metyl-butyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-hydroksy-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(2,2-dimetyl-propoksy)-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(tetrahydro-pyran-4-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(4-hydroksy-4-metyl-pentyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(tetrahydro-pyran-4-ylmetoksymetyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-([1,4]dioksan-2-ylmetoksy)-9-metoksy-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(oxetan-3-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

9-(3-cyklopropyl-propoksy)-2-((R)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-propyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-[2-(1-hydroksy-cyklopentyl)-etyl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-(4-hydroksy-tetrahydro-pyran-4-ylethynyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-(3-metoksy-propyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-[2-(1-hydroksy-cyklopentyl)-etyl]-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-propoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-isopropoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-propoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on,

2-((R)-1-[1,4]dioksan-2-ylmetoksy)-9-(2-isopropoksy-etoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on og

2-((S)-1-[1,4]dioksan-2-ylmetoksy)-9-(4-metoksy-butyl)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on.

14. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge krav 1, hvor forbindelsen er 9-cyklopropylethynyl-2-((S)-1-[1,4]dioksan-2-ylmetoksy)-6,7-dihydro-pyrimido[6,1-a]isokinolin-4-on.

15. Farmasøytisk preparat omfattende en forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 1-14 og en farmasøytisk akseptabel bærer.

16. Farmasøytiske preparatet ifølge krav 15 omfattende en ytterligere terapeutisk middel.

17. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 1-14 eller det farmasøytiske preparatet ifølge krav 15 eller 16, for anvendelse som et medikament.

18. Forbindelse eller farmasøytisk akseptabelt salt derav, ifølge hvilket som helst av kravene 1-14 eller det farmasøytiske preparatet ifølge krav 15 eller 16, for anvendelse i behandling eller forebygging av inflammatoriske tilstander, nevroinflammatoriske tilstander, infeksjøs sykdommer, autoimmune sykdommer, endokrine og/eller metabolske sykdommer og/eller sykdommer som involverer svekkelse av immuncellefunksjoner.

19. Anvendelse ifølge krav 18, hvor den inflammatoriske tilstanden er revmatoid artritt, vaskulitt, kronisk obstruktiv lungesykdom, astma, idiopatisk pulmonal fibrose, psoriasis, Crohns sykdom og/eller ulcerativ kolitt.