

(10) International Publication Number
WO 2013/003298 A3(43) International Publication Date
3 January 2013 (03.01.2013)

(51) International Patent Classification:

C07D 519/00 (2006.01) *A61K 31/4985* (2006.01)
C07D 487/04 (2006.01) *A61P 25/00* (2006.01)

(21) International Application Number:

PCT/US2012/044111

(22) International Filing Date:

26 June 2012 (26.06.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/502,481 29 June 2011 (29.06.2011) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

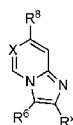
Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

7 March 2013

(54) Title: INHIBITORS OF PDE10



(I)

(57) Abstract: PDE10 inhibitors having the general formula (I) are disclosed. Compositions comprising the compounds and methods for using the compounds to inhibit PDE10 are also disclosed.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/044111

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D519/00 C07D487/04 A61K31/4985 A61P25/00
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2009/144392 A1 (SANOFI AVENTIS [FR]; DE PERETTI DANIELLE [FR]; EVANNO YANNICK [FR]; MA) 3 December 2009 (2009-12-03) claims 1,12-14; examples 9,13-18,105; table 2 page 68, lines 1-7 -----	1-9
A	US 2011/065727 A1 (DE PERETTI DANIELLE [FR] ET AL) 17 March 2011 (2011-03-17) claims 1,14-16; examples 5,8,57,91,94; table 2 paragraph [0335] -----	1-9
A	WO 2011/036127 A1 (HOFFMANN LA ROCHE [CH]; ALBERATI DANIELA [CH]; ALVAREZ SANCHEZ RUBEN []) 31 March 2011 (2011-03-31) claims 1,26,27; examples 1,77,80 ----- -/-	1-9



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

15 January 2013

Date of mailing of the international search report

23/01/2013

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2012/044111

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	AL-TEL T H ET AL: "Post Groebke-Blackburn multicomponent protocol: Synthesis of new polyfunctional imidazo[1,2-a]pyridine and imidazo[1,2-a]pyrimidine derivatives as potential antimicrobial agents", EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, EDITIONS SCIENTIFIQUE ELSEVIER, PARIS, FR, vol. 45, no. 12, 1 December 2010 (2010-12-01), pages 5848-5855, XP027526547, ISSN: 0223-5234 [retrieved on 2010-09-25] abstract; compounds 5a-g -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/044111

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 7-9(completely); 6(partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 7-9(completely); 6(partially)

A compound of formula (I), composition comprising it and method using it

2. claim: 6(partially)

The compounds

2-Chloro-7-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)quinoline and

(S)-7-(5,8-dimethyl-[1,2,4]triazolo[1,5-a]pyrazin-2-yl)-2-(3-fluoropyrrolidin-1-yl)quinoline

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/044111

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