(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 6 January 2005 (06.01,2005)

PCT

(10) International Publication Number WO 2005/000298 A3

(51) International Patent Classification⁷: A61K 31/426, C07D 249/14, 263/48, 271/06, 285/08, 285/12, 277/38, 277/42, 277/56, 417/04, 417/10, 417/14, A61P 29/00

(21) International Application Number:

PCT/US2004/017580

(22) International Filing Date: 2 June 2004 (02.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/475,662 3 June 2003 (03.06.2003) US 60/531,541 19 December 2003 (19.12.2003) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US 60/475,662 (CON)
Filed on 3 June 2003 (03.06.2003)
US 60/531,541 (CON)
Filed on 19 December 2003 (19.12.2003)

(71) Applicant (for all designated States except US): TRIAD THERAPEUTICS, INC. [US/US]; 9381 Judicial Drive, San Diego, CA 92121 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): DONG, Qing [CN/US]; 11087 Morning Creek Drive South, San Diego, CA 92128 (US). PIERRE, Fabrice [FR/US]; 3268 via Marin, Apt. 40, La Jolla, CA 92307 (US). WANG, Jianqiang [CN/US]; 5 Kimball Court, Apt. 501, Woburn, MA 01801 (US).
- (74) Agent: RIEGER, Dale, L. à; Fish & Richardson P.C., 12390 El Camino Real, San Diego, CA 92130 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 3 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: 5-MEMBERED HETEROCYCLE-BASED P-38 INHIBITORS

(57) Abstract: Provided are aminoaryl substituted 5-membered heterocycle-based p38 kinase, including p38alfa and p38beta. Pharmaceutical compositions containing the compounds are also provided. Method of use of the compounds and compositions are also provided, including methods of treatment, prevention, or amelioration of one or more symptoms of p38 kinase mediated diseases and disorders, including, but not limited to, inflammatory diseases and disorders.





INTERNATIONAL SEARCH REPORT

Interior hal Application No
PCT/US2004/017580

									
A. CLASSI IPC 7	FICATION OF SUBJECT MATTER A61K31/426 C07D249/14 C07D263, C07D285/12 C07D277/38 C07D277, C07D417/10 C07D417/14 A61P29/0	/42 C07D277/56 C	07D285/08 07D417/04						
According to	o International Patent Classification (IPC) or to both national classific								
B. FIELDS SEARCHED									
Minimum documentation searched (classification system followed by classification symbols) IPC 7 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 practical, search terms used)									
EPO-Internal, WPI Data, PAJ, CHEM ABS Data, BEILSTEIN Data									
С. ВОСИМ	ENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with indication, where appropriate, of the rel	Relevant to claim No.							
A	WO 03/002544 A (SQUIBB BRISTOL MY WROBLESKI STEPHEN T (US); HENDERS (US)) 9 January 2003 (2003-01-09) claims 1,27	SON IAN	1-87						
Further documents are listed in the continuation of box C. Patent family members are listed in 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 document 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 be considered to involve an inventive step when the document so 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 Date of mailing of the international search report								
	6 December 2004	27/12/2004	A						
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Bérillon, L							



Box II	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)					
This Inte	This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:					
1. X	Claims Nos.: 54-87 because they relate to subject matter not required to be searched by this Authority, namely:					
	Although claims 54-87 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.					
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 III	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)					
This Inte	ernational Searching Authority found multiple Inventions in this international application, as follows:					
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 fee, this Authority did not invite payment of any additional fee.					
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.:					
Remark	on Protest The additional search fees were accompanied by the applicant's protest.					
	No protest accompanied the payment of additional search fees.					

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internation Application No PCT/US2004/017580

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03002544	A	09-01-2003	CA EP WO US	2451128 A1 1406875 A1 03002544 A1 2003139435 A1	09-01-2003 14-04-2004 09-01-2003 24-07-2003