(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
23 November 2006 (23.11.2006)

PCT

(10) International Publication Number
WO 2006/125101 A3

(51) International Patent Classification:
C07D 487/04 (2006.01) *A61P 35/00* (2006.01)
A61K 31/4985 (2006.01)

(21) International Application Number:
PCT/US2006/019280

(22) International Filing Date: 18 May 2006 (18.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/683,175 20 May 2005 (20.05.2005) US

(71) Applicant *(for all designated States except US)*: **ARRAY BIOPHARMA INC.** [US/US]; 3200 Walnut Street, Boulder, CO 80301 (US).

(71) Applicants and
(72) Inventors: **LAIRD, Ellen** [US/US]; 2435 Mallard Circle, Longmont, CO 80504 (US). **TOPALOV, George** [BG/US]; 1697 Reliance Circle, Superior, CO 80027 (US). **LYSSIKATOS, Joseph, P.** [US/US]; 1720 Eldorado Court, Superior, CO 80027 (US). **WELCH, Mike** [US/US]; 4834 W. 117th Avenue, Westminster, CO 80031 (US). **GRINA, Jonas** [US/US]; 2480 Clayton Circle, Superior, CO 80027 (US). **HANSEN, Josh** [US/US]; 2331 Steel Street, Longmont, CO 80501 (US). **NEWHOUSE, Brad** [US/US]; 226 Berthoud Trail, Broomfield, CO 80020 (US).

(74) Agents: **HARRIS, Robert, J.** et al.; Viksnins Harris & Padys PLLP, P.O. Box 111098, St. Paul, MN 55111-1098 (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, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

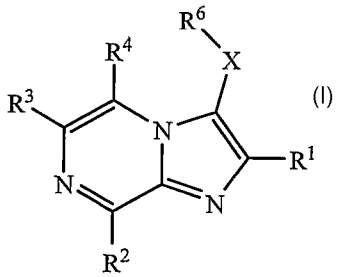
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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).

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:
29 March 2007

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: RAF INHIBITOR COMPOUNDS AND METHODS OF USE THEREOF



(I)

(57) Abstract: Compounds of Formula (I) are useful for inhibiting Raf kinase and for treating disorders mediated thereby. Methods of using compounds of Formula (I), and stereoisomers, tautomers, solvates and pharmaceutically acceptable salts thereof, for in vitro, in situ, and in vivo diagnosis, prevention or treatment of such disorders in mammalian cells, or associated pathological conditions are disclosed.

WO 2006/125101 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/019280

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D487/04 A61K31/4985 A61P35/00

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

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, BEILSTEIN 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 2004/072080 A (CELLULAR GENOMICS INC [US]) 26 August 2004 (2004-08-26) paragraph [0003] - paragraph [0017]; claims 1,46; compounds 9-56	1-40
A	US 2004/220189 A1 (SUN CONNIE LI [US] ET AL SUN CONNIE LI [US] ET AL) 4 November 2004 (2004-11-04) paragraph [1530]; claims 1,14; examples 1-128	1-40

☐ 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 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 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	Date of mailing of the international search report
29 January 2007	05/02/2007

Name and mailing address of the ISA/	Authorized officer
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	Seelmann, Ingo

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2006/019280

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004072080 A	26-08-2004	WO 2004072081 A1	26-08-2004
US 2004220189 A1	04-11-2004	NONE	