(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 26 June 2008 (26.06.2008)

(10) International Publication Number WO 2008/076560 A3

- (51) International Patent Classification: C07K 16/00 (2006.01) A61K 39/395 (2006.01)
- (21) International Application Number:

PCT/US2007/084792

(22) International Filing Date:

15 November 2007 (15.11.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/866,058 US 15 November 2006 (15.11.2006)

- (71) Applicant (for all designated States except US): MEDAREX, INC. [US/US]; 707 State Road, Princeton, NJ 08540 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KORMAN, Alan [US/US]; 301 El Cerrito Avenue, Piedmont, CA 94611 (US). SELBY, Mark [US/US]; 136 Galewood Circle, San Francisco, CA 94131 (US). THUDUIM, Kent, B. [US/US]; 1220 Hampel St., Oakland, CA 94602 (US). HALK, Edward [US/US]; 1004 Edmonds Court, Sunnyvale, CA 94087 (US). SRINIVASAN, Mohan [IN/US]; 1044 Arlington Lane, San Jose, CA 95129 (US). PASS-MORE, David, B. [US/US]; 1630 Hull Drive, San Carlos, CA 94070 (US).
- (74) Agents: FEHLNER, Paul, F. et al.; Baker Botts L.l.p., 30 Rockefeller Plaza, New York, NY 10112-4498 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, MT, 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
- with sequence listing part of description published separately in electronic form and available upon request from the International Bureau
- (88) Date of publication of the international search report: 16 October 2008

(54) Title: HUMAN MONOCLONAL ANTIBODIES TO BTLA AND METHODS OF USE

(57) Abstract: The present disclosure provides isolated monoclonal antibodies, particularly human monoclonal antibodies that specifically bind to BTLA with high affinity. Nucleic acid molecules encoding the antibodies of the disclosure, expression vectors, host cells and methods for expressing the antibodies of the disclosure are also provided. Immunoconjugates, bispecific molecules and pharmaceutical compositions comprising the antibodies of the disclosure are also provided. The disclosure also provides methods for detecting BTLA, as well as methods for treating various diseases, including cancer and infectious diseases, using anti- BTLA antibodies.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/84792

A. CLASSIFICATION OF SUBJECT MATTER IPC: C07K 16/00(2006.01);A61K 39/395(2006.01)				
USPC: 530/387.1;424/130.1 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) U.S.: 530/387.1;424/130.1				
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) SCORE, WEST, Dialog				
C. DOCI	JMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap	propriate, o	of the relevant passages	Relevant to claim No.
Х	US 7,304,149 (MURPHY et al.), filed 20 June 2003.			1-7, 61-86
Υ				19-34
X	US Pat. Pub. No. 2005/0074821 (WILD et al.), filed 15 Jul. 2004.			8,11,12,35- 40,43,50,53,54,61-74 and 87
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 published on or after the international filing date		"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 document of particular relevance: the claimed invention cannot be considered novel or cannot be considered novel or taken alone when the document is taken alone	
"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)		"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	
"O" document referring to an oral disclosure, use, exhibition or other means			being obvious to a person skilled in the	·
priority date claimed			"&" document member of the same patent family	
l			ailing of the international searc	n report
Name and mailing address of the ISA/US Authorized officer Authorized officer				
Mail Stop PCT. Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201			Telephone No. 571-272-1600	

Form PCT/ISA/210 (second sheet) (April 2007)