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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 June 2013 (06.06.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/079174 A1

(51) International Patent Classification:
A61K 39/395 (2006.01) *C07K 16/28* (2006.01)

(21) International Application Number:
PCT/EP2012/004822

(22) International Filing Date:
21 November 2012 (21.11.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/563,903 28 November 2011 (28.11.2011) US

(71) Applicant: **MERCK PATENT GMBH** [DE/DE]; Frankfurter Strasse 250, 64293 Darmstadt (DE).

(72) Inventors: **NASTRI, Horacio, G.**; 1082 Greendale Ave, Needham, MA 02492 (US). **IFFLAND, Christel**; 67 Inman Street, Cambridge, MA 02739 (US). **LEGER, Olivier**; 603, route des Luches, 74800 Saint-Sixt (FR). **AN, Qi**; 36 Green Heron Lane, Nashua, NH 03061 (US). **CARTWRIGHT, Mark**; 37 Princess Rd, West Newton, MA 02465 (US). **McKENNA, Sean, D.**; 679 Lincoln Street, Duxbury, MA 02332 (US). **SOOD, Vanita, D.**; 18 Garrison Avenue, 1, Somerville, MA 02144 (US). **HAO, Gang**; 30 Stearns Road, Belmont, MA 02478 (US).

(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, BN, 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, PA, 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).

Published:

— *with international search report (Art. 21(3))*

— *with sequence listing part of description (Rule 5.2(a))*

WO 2013/079174 A1

(54) Title: ANTI-PD-L1 ANTIBODIES AND USES THEREOF

(57) Abstract: The present application relates to anti-PD-L1 antibodies or antigen binding fragments thereof, nucleic acid encoding the same, therapeutic compositions thereof, and their use to enhance T-cell function to upregulate cell-mediated immune responses and for the treatment of T cell dysfunctional disorders, such as tumor immunity, for the treatment of and cancer.