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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 February 2015 (05.02.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/015003 A1

(51) International Patent Classification:
C07K 16/28 (2006.01) *A61K 39/00* (2006.01)

(21) International Application Number:
PCT/EP2014/066650

(22) International Filing Date:
1 August 2014 (01.08.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

13178958.8	1 August 2013 (01.08.2013)	EP
61/861,008	1 August 2013 (01.08.2013)	US
14167425.9	7 May 2014 (07.05.2014)	EP

(71) Applicants: **UNIVERSITÉ CATHOLIQUE DE LOUVAIN** [BE/BE]; Place de l'Université 1, B-1348 Louvain la Neuve (BE). **LUDWIG INSTITUTE FOR CANCER RESEARCH LTD** [CH/CH]; Stadelhoferstrasse 22, CH-8001 Zurich (CH).

(72) Inventors: **LUCAS, Sophie**; Veeweidestraat, 158C, Duisburg, B-3080 Tervuren (BE). **COULIE, Pierre**; 58, Honnekinberg, B-1950 Krainem (BE). **CUENDE VILLASUR, Julia**; Naamsteteenweg, 328, bus 501, Heverlee, B-3001 Louvain (BE). **DUMOUTIER, Laure**; 129, rue Trémouroux, B-1360 Orbais (BE). **RENAULD, Jean-Christophe**; 148, Avenue Reine Astrid, B-1950 Kraainem (BE). **VAN DE WONING, Sebastian**; Basiel de Craenestraat 18, B-9800 Bachte-Maria-Leerne (BE). **SAUNDERS, Michael**; Jonction 38, B-1190 Brussel (BE). **DE HAARD, Hans**; 't Zwint 1, NL-4436NA Oudelande (NL). **DE BOECK, Gitte**; Limmersweg 14, B-1840 Malderen (BE).

(74) Agent: **ICOSA**; 83 avenue Denfert-Rochereau, F-75014 Paris (FR).

(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,

[Continued on next page]

(54) Title: ANTI-GARP PROTEIN AND USES THEREOF

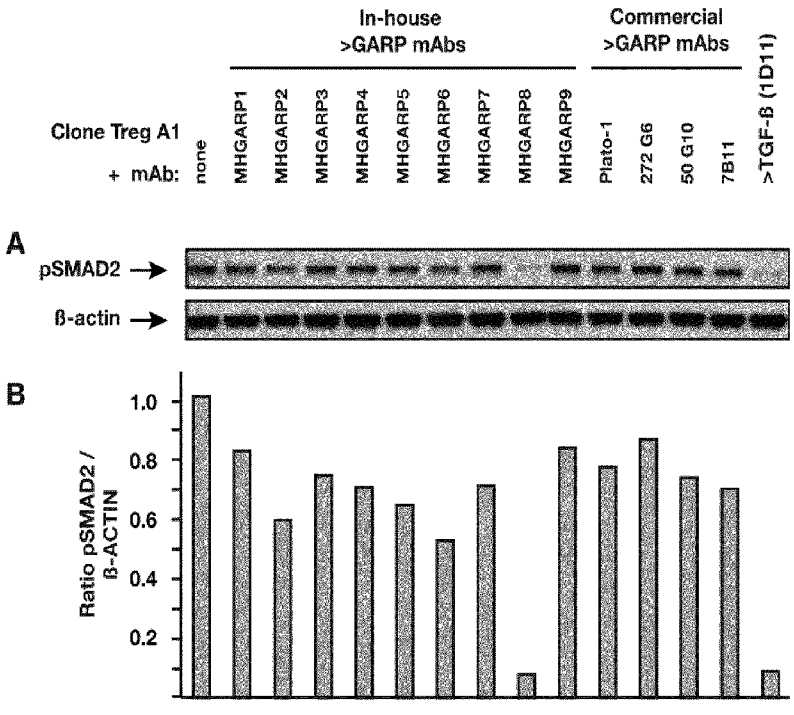


FIG. 2

[Continued on next page]

WO 2015/015003 A1

HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, 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, SA, 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, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

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

— *with (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description (Rules 13bis.4(d)(i) and 48.2(a)(viii))*

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

(57) Abstract: The present invention relates to an antibody binding to the transmembrane protein 'glycoprotein A repetitions predominant' (GARP) in the presence of TGF-β and uses thereof.