



(51) International Patent Classification:

C07K 16/46 (2006.01) A61K 39/395 (2006.01)  
C07K 16/28 (2006.01)

(21) International Application Number:

PCT/EP2015/075628

(22) International Filing Date:

3 November 2015 (03.11.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/EP2014/073738  
4 November 2014 (04.11.2014) EP  
15167034.6 8 May 2015 (08.05.2015) EP

(71) Applicant: **GLENMARK PHARMACEUTICALS S.A.**  
[CH/CH]; Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH).

(72) Inventors: **OLLIER, Romain**; Glenmark Pharmaceuticals S.A., Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH). **HOU, Samuel**; Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH). **LISSILAA, Rami**; Glenmark Pharmaceuticals S.A., Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH). **SKEGRO, Darko**; Glenmark Pharmaceuticals S.A., Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH). **BACK, Jonathan**; Glenmark Pharmaceuticals S.A., Chemin de la Combeta 5, CH-2300 La Chaux-de-Fonds (CH).

(74) Agent: **SCHOELLHORN, Andreas**; Latscha Schöllhorn Partner AG, Austrasse 24, 4051 Basel (CH).

(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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, 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, ST, 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:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

**Published:**

— with international search report (Art. 21(3))  
— with sequence listing part of description (Rule 5.2(a))



(54) Title: CD3/CD38 T CELL RETARGETING HETERO-DIMERIC IMMUNOGLOBULINS AND METHODS OF THEIR PRODUCTION

(57) Abstract: The present invention relates to hetero-dimeric immunoglobulins that target both a component of the human CD3 antigen and a component of the human CD38 antigen and methods of making the same. The present invention also relates to antibodies which bind to the human CD38 antigen and derivatives thereof for use as therapeutic or diagnostic reagents and methods of making the same.