

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
06 October 2022 (06.10.2022)



(10) International Publication Number
WO 2022/208505 A1

(51) International Patent Classification:

C07K 16/28 (2022.01) *A61K 39/00* (2022.01)
C07K 16/30 (2022.01) *A61K 39/395* (2022.01)
A61P 35/00 (2022.01) *G01N 33/53* (2022.01)
A61P 31/00 (2022.01) *G01N 33/574* (2022.01)

(21) International Application Number:

PCT/IL2022/050348

(22) International Filing Date:

31 March 2022 (31.03.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/169,335 01 April 2021 (01.04.2021) US

(71) Applicants: **4C BIOMED LIMITED** [GB/GB]; BD Technology Park, 17 Station Road, London N11 1QJ (GB). **TEL HASHOMER MEDICAL RESEARCH INFRASTRUCTURE AND SERVICES LTD.** [IL/IL]; The Chaim Sheba Medical Center - Tel Hashomer, 1 Emek Ha-Ela Street, 5265601 Ramat Gan (IL).

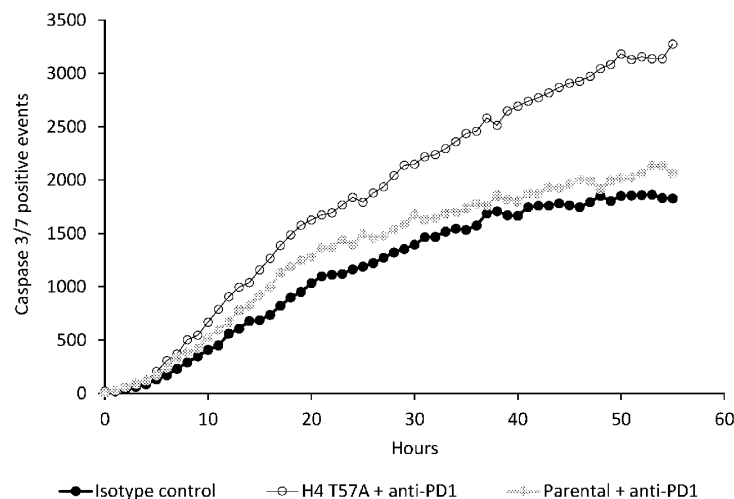
(72) Inventors: **GREENBERG, Eyal**; 1 HaShita Street, P.O. Box 7191, 4053551 Even Yehuda (IL). **GA-LORE-HASKEL, Gilli**; 9/4 Yaar Lahav Street, 4060000 Tel Mond (IL). **MERHAVI-SHOHAM, Efrat**; 43/9 Menashe Kapara, 7655312 Rehovot (IL). **MARKEL, Gal**; 15 Tidhar Street, 5296000 Ramat Gan (IL).

(74) Agent: **KESTEN, Dov** et al.; GEYRA KESTEN FRYDMAN, 100 Hahashmonaim Street, P.O. Box 52630, 6713317 Tel Aviv (IL).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: ENHANCED ANTI-HVEM ANTIBODIES AND USE THEREOF

Figure 7B



(57) Abstract: Antibodies or antigen binding fragments thereof that bind HVEM, inhibit HVEM-BTLA interaction and allow binding to LIGHT are provided. Methods of treating disease with these antibodies or antigen binding fragments thereof, nucleic acid molecules encoding these antibodies or antigen binding fragments thereof and kits comprising these antibodies or antigen binding fragments thereof are also provided.

[Continued on next page]

(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).

Published:

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