

(51) International Patent Classification:
Not classified(21) International Application Number:
PCT/US2022/032482(22) International Filing Date:
07 June 2022 (07.06.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/208,478 08 June 2021 (08.06.2021) US
63/343,268 18 May 2022 (18.05.2022) US(71) Applicant: **MERCK PATENT GMBH** [DE/DE]; Frank-
furter Strasse 250, 64293 Darmstadt (DE).

(72) Inventor; and

(71) Applicant (for US only): **GROSS, Alec** [US/US]; 45A
Middlesex Turnpike, Billerica, MA 01821 (US).(72) Inventors: **SUN, Chia, Chi**; 45A Middlesex Turnpike, Bil-
lerica, MA 01821 (US). **CHEN, Gang**; 45A Middlesex
Turnpike, Billerica, MA 01821 (US). **NANFACK, Yves**,**Fomekong**; 45A Middlesex Turnpike, Billerica, MA 01821
(US). **AN, Qi**; 45A Middlesex Turnpike, Billerica, MA
01821 (US). **ZAKERI, Bijan**; 61 Pearl St, Woburn, MA
01801 (US).(74) Agent: **ASHRAF, Shovon** et al.; Goodwin Procter LLP,
100 Northern Avenue, IP Docketing Dept./7th Fl, Boston,
MA 02210 (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, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IQ, 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.(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,

(54) Title: PROTEINS THAT BIND CD80 AND/OR CD86, AND OX40L

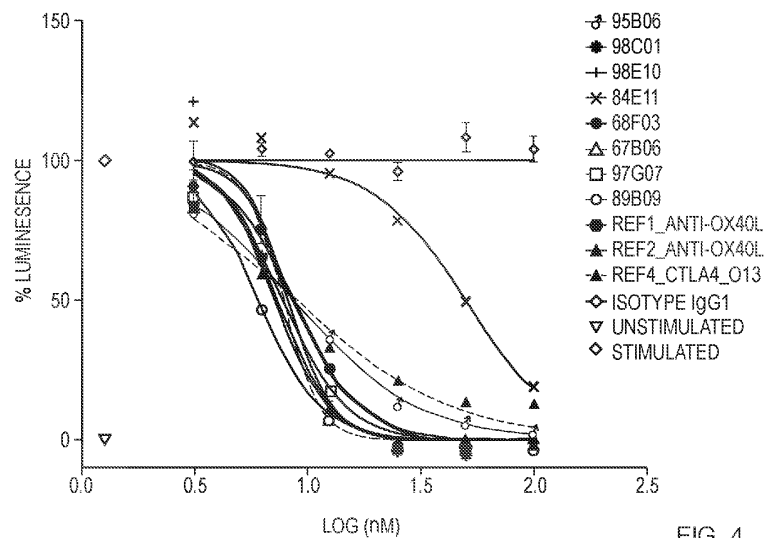


FIG. 4

(57) Abstract: This disclosure relates generally to proteins that inhibit T cell costimulatory signaling comprising: a polypeptide or complex of two or more polypeptides that specifically binds CD80 and/or CD86, and a polypeptide or complex of two or more polypeptides that specifically binds OX40L. In some embodiments, the present application provides antibodies that specifically bind OX40L. In some embodiments the application also provides therapeutic methods for using such proteins in the treatment of autoimmune diseases.

[Continued on next page]

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:

- *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*
- *with sequence listing part of description (Rule 5.2(a))*