



(51) International Patent Classification:

A61K 38/17 (2006.01) *A61P 29/00* (2006.01)
C07K 14/705 (2006.01) *A61P 37/00* (2006.01)

(21) International Application Number:

PCT/US2022/072188

(22) International Filing Date:

06 May 2022 (06.05.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/186,027	07 May 2021 (07.05.2021)	US
63/239,899	01 September 2021 (01.09.2021)	US
63/256,505	15 October 2021 (15.10.2021)	US
63/278,072	10 November 2021 (10.11.2021)	US
63/329,325	08 April 2022 (08.04.2022)	US

(71) Applicant: ALPINE IMMUNE SCIENCES, INC.

[US/US]; 188 East Blaine Street, Suite 200, Seattle, Washington 98102 (US).

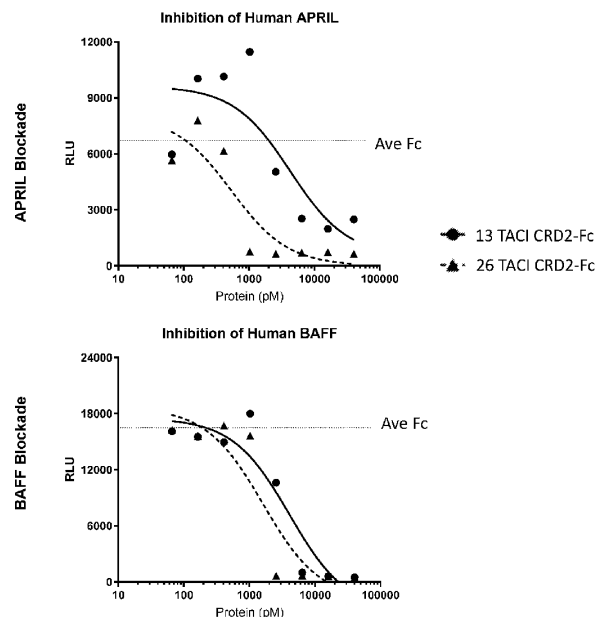
(72) Inventors: **DILLON, Stacey**; 188 East Blaine Street, Suite 200, Seattle, Washington 98102 (US). **YANG, Jing**; 188 East Blaine Street, Suite 200, Seattle, Washington 98102 (US). **PENG, Stanford L.**; 188 East Blaine Street, Suite 200, Seattle, Washington 98102 (US).

(74) Agent: **POTTER, Karen** et al.; Morrison & Foerster LLP, 12531 High Bluff Drive, Suite 100, San Diego, California 92130-2040 (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.

(54) Title: METHODS OF DOSING AND TREATMENT WITH A TACI-FC FUSION IMMUNOMODULATORY PROTEIN

FIG. 3A



(57) Abstract: Provided herein are methods of treatment and uses involving an immunomodulatory TACI-Fc fusion protein that exhibits neutralizing activity of BAFF and APRIL (or BAFF/ APRIL heterotrimers). The provided TACI-Fc protein may include variant domains of Transmembrane Activator and CAML Interactor (TACI). The methods and uses provide therapeutic utility for a variety of immunological diseases, disorders or conditions, such as B cell-mediated diseases, disorder or conditions.

[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))