



(51) International Patent Classification:

C07K 16/28 (2006.01) G01N 33/574 (2006.01)
C07K 16/30 (2006.01)

(21) International Application Number:

PCT/US2018/044449

(22) International Filing Date:

30 July 2018 (30.07.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/539,527 31 July 2017 (31.07.2017) US

(71) Applicant: **TIZONA THERAPEUTICS** [US/US]; 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US).

(72) Inventors: **SOROS, Vanessa**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US). **KOVALENKO, Maria**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US). **CORBIN, John**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200,

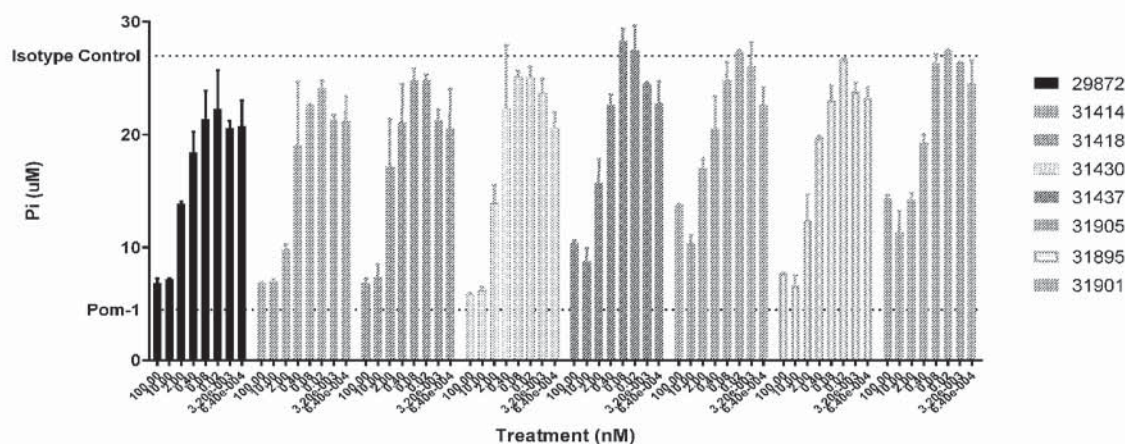
South San Francisco, California 94080 (US). **BEERS, Courtney**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US). **WIDBOOM, Paul Fredrick**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US). **WARFIELD, Joseph Robert**; c/o Tizona Therapeutics, 4000 Shoreline Court, Suite 200, South San Francisco, California 94080 (US).

(74) Agent: **ANDERTON, H. Thomas** et al.; Squire Patton Boggs [US] LLP, 275 Battery Street, Suite 2600, San Francisco, California 94111 (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, IR, IS, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(54) Title: ANTI-CD39 ANTIBODIES, COMPOSITIONS COMPRISING ANTI-CD39 ANTIBODIES AND METHODS OF USING ANTI-CD39 ANTIBODIES

FIG. 11



(57) Abstract: Provided herein are antibodies that selectively bind to CD39 and its isoforms and homologs, and compositions comprising the antibodies. Also provided are methods of using the antibodies, such as therapeutic and diagnostic methods.

(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))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*