



- (51) **International Patent Classification:**
C07K 16/22 (2006.01) *C07K 16/28* (2006.01)
- (21) **International Application Number:**
PCT/US2025/012958
- (22) **International Filing Date:**
24 January 2025 (24.01.2025)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/625,868 26 January 2024 (26.01.2024) US
63/714,597 31 October 2024 (31.10.2024) US
- (71) **Applicant: MEDIAR THERAPEUTICS, INC.** [US/US];
20 Overland Street, Suite 520, Boston, Massachusetts 02215 (US).
- (72) **Inventors: YAWORSKY, Paul;** c/o MEDIAR THERAPEUTICS, INC., Boston, Massachusetts 02215 (US). **ESPELIN, Christopher;** c/o MEDIAR THERAPEUTICS, INC., Boston, Massachusetts 02215 (US). **TAVARES, Daniel;** c/o MEDIAR THERAPEUTICS, INC., Boston, Massachusetts 02215 (US). **DEVINE, Erin;** c/o MEDIAR THERAPEUTICS, INC., Boston, Massachusetts 02215 (US). **DOWER, Gabriela;** c/o MEDIAR THERA-

PEUTICS, INC., Boston, Massachusetts 02215 (US). **FETHEROLF, Morgan;** c/o MEDIAR THERAPEUTICS, INC., Boston, Massachusetts 02215 (US).

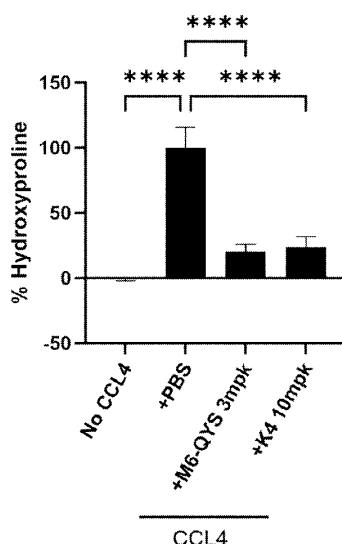
- (74) **Agent: CHEN, Yuwei;** MINTZ LEVIN COHN FERRIS GLOVSKY AND POPEO, P.C., 3580 Carmel Mountain Road, Suite 300, San Diego, California 92130-6768 (US).

(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, CV, 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, MG, MK, MN, MU, 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, UY, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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,

- (54) **Title:** THERAPEUTIC ANTIBODY TARGETING WISPI PROTEIN

FIG. 8A



(57) **Abstract:** Provided herein are antibodies and antibody fragments, which specifically bind WNT1-inducible-signaling pathway protein 1 (WISPI). The anti-WISPI antibodies provided herein bind domain 3 of WISPI protein and are shown to inhibit WISPI protein activity. The anti-WISPI antibodies are contemplated to be effective for treating and preventing fibrosis in a subject in need thereof. In embodiments, the fibrosis is liver fibrosis or lung fibrosis.

LU, LV, MC, ME, 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))*
- *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))*