



(51) International Patent Classification:

A61P 1/00 (2006.01) *C07K 16/22* (2006.01)
A61P 11/00 (2006.01) *C12Q 1/68* (2018.01)
A61P 37/06 (2006.01) *G01N 33/53* (2006.01)

(21) International Application Number:

PCT/US2021/022870

(22) International Filing Date:

18 March 2021 (18.03.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/991,806 19 March 2020 (19.03.2020) US
63/044,478 26 June 2020 (26.06.2020) US

(71) Applicant: **GENENTECH, INC.** [US/US]; 1 DNA Way,
South San Francisco, California 94080-4990 (US).

(72) Inventors: **LIANG, Wei-Ching**; c/o Genentech, Inc., 1
DNA Way, South San Francisco, California 94080-4990
(US). **ARRON, Joseph R.**; c/o Genentech, Inc., 1
DNA Way, South San Francisco, California 94080-4990
(US). **DEPIANTO, Daryle**; c/o Genentech, Inc., 1 DNA

Way, South San Francisco, California 94080-4990 (US).
HALPERN, Wendy Green; c/o Genentech, Inc., 1 DNA
Way, South San Francisco, California 94080-4990 (US).
LIN, WeiYu; c/o Genentech, Inc., 1 DNA Way, South
San Francisco, California 94080-4990 (US). **LUPAR-**
DUS, Patrick J.; c/o Genentech, Inc., 1 DNA Way,
South San Francisco, California 94080-4990 (US). **RA-**
MALINGAM, Thirumalai Rajan; c/o Genentech, Inc., 1
DNA Way, South San Francisco, California 94080-4990
(US). **SESHASAYEE, Dhaya**; c/o Genentech, Inc., 1 DNA
Way, South San Francisco, California 94080-4990 (US).
SUN, Tianhe; c/o Genentech, Inc., 1 DNA Way, South
San Francisco, California 94080-4990 (US). **TYAGI, Tu-**
lika; c/o Genentech, Inc., 1 DNA Way, South San Fran-
cisco, California 94080-4990 (US). **WU, Jia**; c/o Genen-
tech, Inc., 1 DNA Way, South San Francisco, California
94080-4990 (US). **WU, Yan**; c/o Genentech, Inc., 1 DNA
Way, South San Francisco, California 94080-4990 (US).
YIN, Jian Ping; c/o Genentech, Inc., 1 DNA Way, South
San Francisco, California 94080-4990 (US).

(74) Agent: **MACKENZIE, Katherine J.** et al.; c/o Genen-
tech, Inc., 1 DNA Way, South San Francisco, California
94080-4990 (US).

(54) Title: ISOFORM-SELECTIVE ANTI-TGF- β ANTIBODIES AND METHODS OF USE

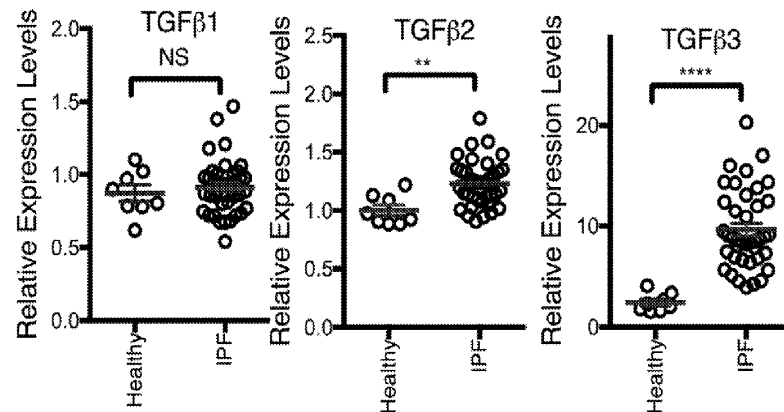


FIG. 3A

(57) **Abstract:** The invention provides isoform-selective anti-TGF β antibodies and methods of using the same. In particular, isoform-selective anti-TGF β 2, anti-TGF β 3, and anti-TGF β 2/3 monoclonal antibodies are provided, e.g., for the treatment of fibrosis and other TGF β -related disorders.

[Continued on next page]

(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, 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, 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))
- 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))