



(51) International Patent Classification:

C07K 16/28 (2006.01) A61P 35/00 (2006.01)

C07K 16/32 (2006.01)

(21) International Application Number:

PCT/US2021/030115

(22) International Filing Date:

30 April 2021 (30.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/018,436 30 April 2020 (30.04.2020) US

(71) Applicant: **SUTRO BIOPHARMA, INC.** [US/US]; 310 Utah Street, Suite 150, South San Francisco, California 94080 (US).

(72) Inventors: **GROFF, Daniel**; c/o SUTRO BIOPHARMA, INC., 310 Utah Street, Suite 150, South San Francisco, California 94080 (US). **HANSON, Jeffrey**; c/o SUTRO BIOPHARMA, INC., 310 Utah Street, Suite 150, South San Francisco, California 94080 (US).

(74) Agent: **MAO, Yifan** et al.; KILPATRICK TOWNSEND & STOCKTON LLP, Mailstop: IP Docketing - 22, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309 (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, 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).

(54) Title: METHODS OF PRODUCING FULL-LENGTH ANTIBODIES USING E.COLI

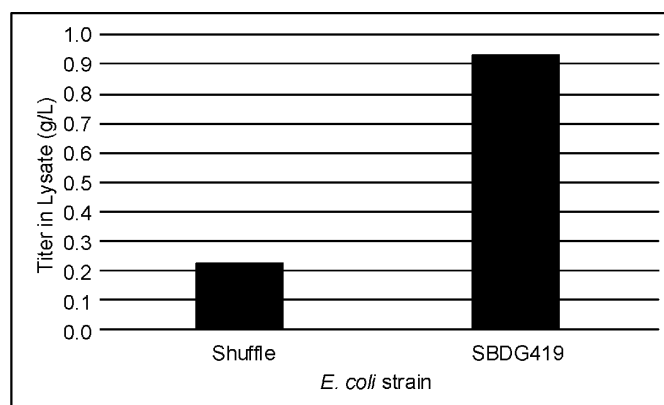


FIG. 1

(57) Abstract: This disclosure provides a method of producing full-length antibodies in *E.coli* with a yield of at least about 200 mg/L. The *E. coli* cells typically have an oxidative cytoplasm, which is helpful for maintaining the three-dimensional structure and stability of proteins having disulfide bonds. In some cases, the molar ratio of the produced HC and LC amount from culturing the *E. coli* ranges from about 1:1 to about 1:3 (e.g., from about 1:1 to about 1:2.5, from about 1:1 to about 1:2).

[Continued on next page]

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))