(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 May 2009 (07.05.2009)

PCT

(10) International Publication Number
WO 2009/058812 A1

(51) International Patent Classification:
*C07K 16/06* (2006.01) *C07K 16/28* (2006.01)
*C07K 1/18* (2006.01) *C07K 16/22* (2006.01)

(21) International Application Number:
PCT/US2008/081516

(22) International Filing Date: 29 October 2008 (29.10.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/983,825 30 October 2007 (30.10.2007) US

(71) Applicant *(for all designated States except US)*: **GENENTECH, INC.** [US/US]; 1 DNA Way, South San Francisco, California 94080 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **LEBRETON, Benedicte Andree** [FR/US]; 1880 Vallejo Street #3, San Francisco, California 94123 (US). **O'CONNOR, Deborah Ann** [US/US]; 1641 Cedar Street, San Carlos, California 94070 (US). **SAFTA, Aurelia** [US/US]; 1655 North California Boulevard #453, Walnut Creek, California 94596 (US). **SHARMA, Mandakini** [IN/US]; 563 Montego Terrace, Sunnyvale, California 94089 (US).

(74) Agents: **PAZDERA, R. Minako** et al.; 1 DNA Way, MS 49, South San Francisco, California 94080 (US).

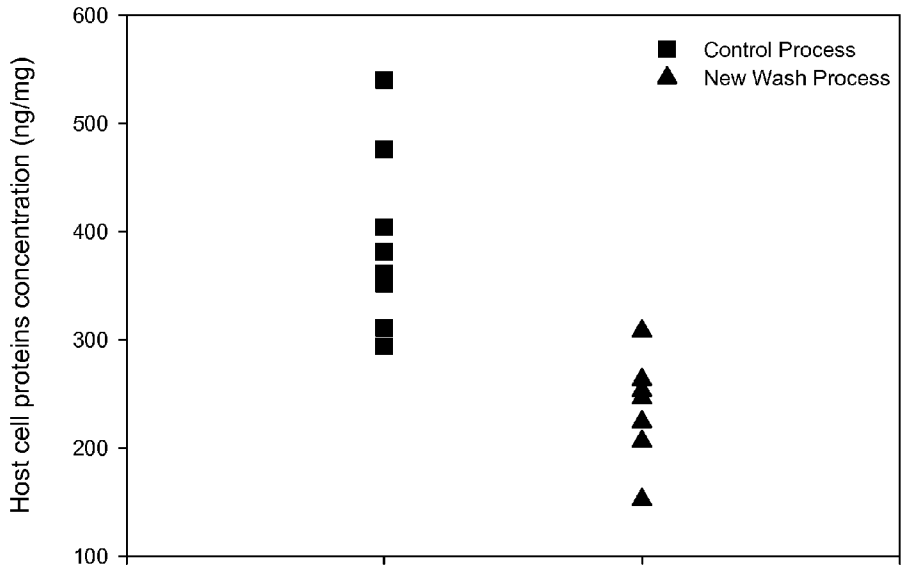
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*[Continued on next page]*

(54) Title: ANTIBODY PURIFICATION BY CATION EXCHANGE CHROMATOGRAPHY

**FIG. 3 – Host Cell Proteins Removal for Rituximab Processes**




(57) Abstract: A method for purifying an antibody by cation exchange chromatography is described in which a high pH wash step is used to remove of contaminants prior to eluting the desired antibody using an elution buffer with increased conductivity.

WO 2009/058812 A1

**Published:**

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

— *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*