

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
27 June 2019 (27.06.2019)



(10) International Publication Number
WO 2019/126554 A1

(51) International Patent Classification:
C07K 1/22 (2006.01)

(21) International Application Number:
PCT/US2018/066890

(22) International Filing Date:
20 December 2018 (20.12.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/609,214 21 December 2017 (21.12.2017) US
62/694,387 05 July 2018 (05.07.2018) US

(71) Applicant: GENZYME CORPORATION [US/US]; 50
Binney Street, Cambridge, Massachusetts 02142 (US).

(72) Inventor: BEIGIE, Carl A.; c/o Sanofi, 55 Corporate Drive,
Mail Code: 55A-525, Bridgewater, New Jersey 08807 (US).

(74) Agent: ONUFRYK, Christina et al.; Morrison & Foerster
LLP, 755 Page Mill Road, Palo Alto, California 94304 (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.

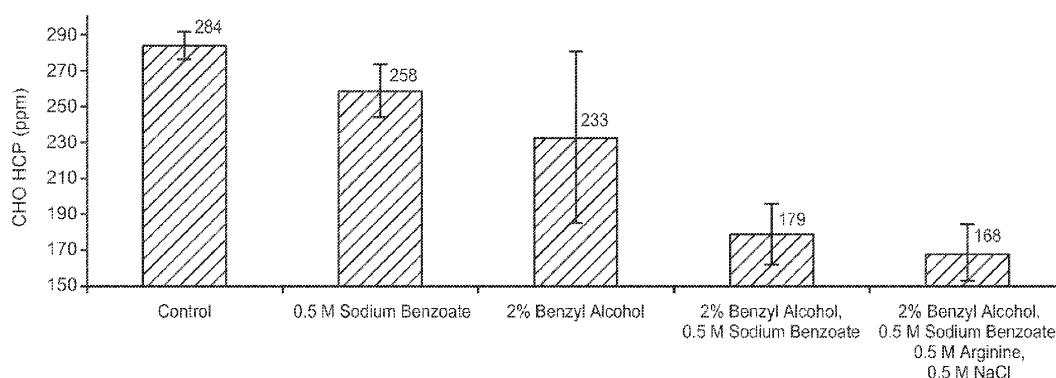
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, 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))

(54) Title: METHODS FOR ENHANCED REMOVAL OF IMPURITIES DURING PROTEIN A CHROMATOGRAPHY

FIG. 1



(57) Abstract: Provided herein are methods relating to the purification of a polypeptide comprising an Fc region (e.g., an antibody) via protein A chromatography; methods relating to the use of a wash solution comprising a benzoate salt and/or benzyl alcohol during protein A chromatography; and methods of adjusting a harvest using sodium benzoate prior to protein A chromatography.

WO 2019/126554 A1