

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 April 2009 (16.04.2009)

PCT

(10) International Publication Number
WO 2009/049284 A3

(51) International Patent Classification:
C12P 21/04 (2006.01) *C12P 21/06* (2006.01)

(21) International Application Number:
PCT/US2008/079695

(22) International Filing Date:
13 October 2008 (13.10.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/979,483 12 October 2007 (12.10.2007) US

(71) Applicant (for all designated States except US): **SIGMA-ALDRICH CO.** [US/US]; 3050 Spruce Street, St. Louis, MO 63103 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ZHANG, Min** [CN/US]; 2909 Laclede Avenue, St. Louis, MO 63103 (US).
ROSS, James S. [US/US]; 2909 Laclede Avenue, St. Louis, MO 63103 (US).

(74) Agents: **BISSEN, Shirley T.** et al.; Polsinelli Shalton Flanigan Suelthaus, 100 South Fourth Street, Suite 1100, St. Louis, MO 63102-1825 (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).

Published:

— with international search report (Art. 21(3))

— with sequence listing part of description (Rule 5.2(a))

(88) Date of publication of the international search report:
30 December 2009

(54) Title: COMPOSITIONS AND METHODS FOR IMPROVED GLYCOPROTEIN SIALYLATION

(57) Abstract: The present invention provides compositions and methods for the production of glycoproteins with enhanced sialylation. In particular, the invention provides cell lines comprising disrupted sialidase expression and methods of using the cell lines to produce glycoproteins with enhanced sialylation.



WO 2009/049284 A3