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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 July 2016 (14.07.2016)

WIPO | PCT

(10) International Publication Number
WO 2016/110302 A1

(51) International Patent Classification:
C12N 9/10 (2006.01)

(21) International Application Number:
PCT/EP2015/002521

(22) International Filing Date:
15 December 2015 (15.12.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
15000016.4 7 January 2015 (07.01.2015) EP

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(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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,

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WO 2016/110302 A1

(54) Title: O-GLYCAN SIALYLATED RECOMBINANT GLYCOPROTEINS AND CELL LINES FOR PRODUCING THE SAME

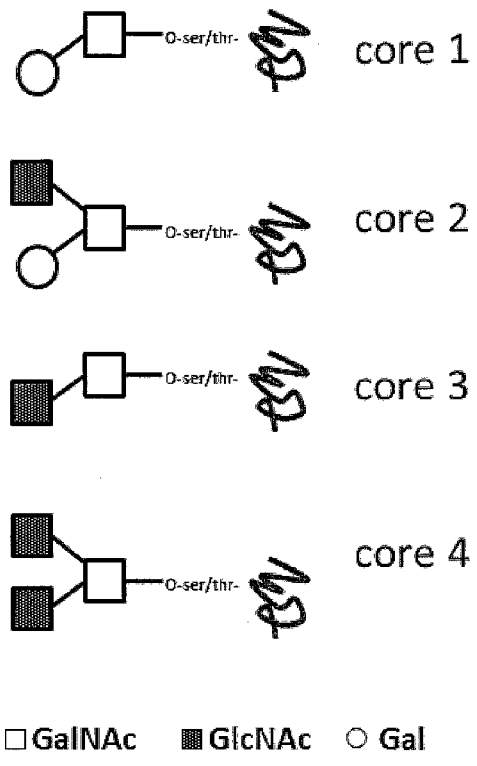


Figure 1

(57) Abstract: The present invention relates to cell lines that are genetically modified to overexpress a β-galactoside a-2,3-sialyltransferase 1 (ST3Gal1), preferably human ST3Gal1, which can be used for the production of recombinant glycoproteins having highly or fully sialylated O-linked GalNAc glycans (GalNAc O-glycans), preferably core 1 GalNAc O-glycans, as well as to respective recombinant glycoproteins. Further, the present invention relates to respective methods of expressing recombinant glycoproteins, methods of increasing the degree of sialylation of recombinant glycoproteins, and methods of decreasing the micro-heterogeneity of GalNAc O-glycans. Finally, the present invention relates to respective uses of the above cell lines for the production of recombinant glycoproteins, for increasing the degree of sialylation of recombinant glycoproteins, and for decreasing the micro-heterogeneity of O-linked GalNAc glycans of recombinant glycoproteins.

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))*