

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
21 September 2023 (21.09.2023)



(10) International Publication Number
WO 2023/175140 A1

(51) International Patent Classification:

C07H 15/04 (2006.01) A61P 37/06 (2006.01)
A61K 47/64 (2017.01) G01N 33/80 (2006.01)

(21) International Application Number:

PCT/EP2023/056880

(22) International Filing Date:

17 March 2023 (17.03.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

22382259.4 18 March 2022 (18.03.2022) EP

(71) Applicant: **REMAB THERAPEUTICS SL** [ES/ES];
Campus UAB Bellaterra, Av. Can Domenech s/n, Mòdul de
Recerca B, 08193 CERDANYOLA DEL VALLÈS (ES).

(72) Inventors: **BELLO GIL, Daniel**; Campus UAB Bellaterra,
Av. Can Domenech s/n, Mòdul de Recerca B, 08193 CER-
DANYOLA DEL VALLÈS (ES). **OLIVERA ARDID,**
Sara; Campus UAB Bellaterra, Av. Can Domenech s/n,
Mòdul de Recerca B, 08193 CERDANYOLA DEL VAL-
LÈS (ES). **FERRERO ALVES, Yara**; Campus UAB Bel-
laterra, Av. Can Domenech s/n, Mòdul de Recerca B,
08193 CERDANYOLA DEL VALLÈS (ES). **RAMILEV-**
NA KHASBIULLINA, Nailia; Campus UAB Bellaterra,
Av. Can Domenech s/n, Mòdul de Recerca B, 08193 CER-
DANYOLA DEL VALLÈS (ES).

(74) Agent: **SUGRAÑES, S.L.P.**; carrer de Provença, 304,
08008 BARCELONA (ES).

(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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,

Published:

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

WO 2023/175140 A1

(54) Title: NEW CARBOHYDRATE DERIVATIVES AS MIMETICS OF BLOOD GROUP A AND B ANTIGENS

(57) Abstract: The present invention relates to new carbohydrate derivatives with activity as mimetics of blood group A and B antigens. The present invention also relates to a method for preparing said carbohydrate derivatives and to a glycoconjugate comprising them bound to a polymeric support. The invention also relates to the use of the glycoconjugates for inhibiting and/or removing anti-A and/or anti-B antibodies from blood and blood derivatives and by-products, and, in particular to their use for avoiding rejection in subjects undergoing in organ transplant or haemolytic reactions in blood transfusions from incompatible donors.