

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number
WO 2004/035607 A3

- (51) International Patent Classification⁷: **C07K 16/28**, 16/30, C12N 5/22, 5/24, 15/63
- (21) International Application Number: PCT/US2003/033057
- (22) International Filing Date: 17 October 2003 (17.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/419,163 17 October 2002 (17.10.2002) US
60/460,028 2 April 2003 (02.04.2003) US
- (71) Applicant (*for all designated States except US*): **GEN-MAB A/S** [DK/DK]; Toldbodgade 33, DK-1253 Copenhagen K (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **TEELING, Jessica** [NL/NL]; Lisdoddelaan 70, NL-1562 SN Krommenie (NL). **RUULS, Sigrid** [NL/NL]; Hessenweg 121B, NL-3731 JG De Bilt (NL). **GLENNIE, Martin** [GB/GB]; 1 Thornhill Road, Southampton SO16 7AU (GB). **VAN DE WINKEL, Jan, G., J.** [NL/NL]; Werlengde Slotlaan 80, NL-3707 CK Zeist (NL). **PARREN, Paul** [NL/NL]; Werdorperwaard 17, NL-3984 PR Odijk (NL). **PETERSEN, Jorgen** [DK/DK]; Solkrogen 6, DK-2960 Rungsted Kyst (DK). **BAADSGAARD, Ole, D., M., Sc.** [DK/SE]; Kyrkogatan 3, S-211 22 Malmo (SE). **HUANG, Haichun** [US/US]; 2425 Sueno Way, Fremont, CA 94539 (US).
- (74) Agents: **DECONTI, Giulio, A.** et al.; Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— *with international search report*
- (88) Date of publication of the international search report: 12 August 2004
- (15) Information about Correction:
Previous Correction:
see PCT Gazette No. 25/2004 of 17 June 2004, Section II
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: HUMAN MONOCLONAL ANTIBODIES AGAINST CD20

(57) Abstract: Isolated human monoclonal antibodies which bind to and inhibit human CD20, and related antibody-based compositions and molecules, are disclosed. The human antibodies can be produced by a transfectoma or in a non-human transgenic animal, *e.g.*, a transgenic mouse, capable of producing multiple isotypes of human monoclonal antibodies by undergoing V-D-J recombination and isotype switching. Also disclosed are pharmaceutical compositions comprising the human antibodies, non-human transgenic animals and hybridomas which produce the human antibodies, and therapeutic and diagnostic methods for using the human antibodies.



WO 2004/035607 A3