

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 May 2007 (31.05.2007)

PCT

(10) International Publication Number
WO 2007/059782 A1

(51) International Patent Classification:
A61K 51/10 (2006.01) **C07K 16/16** (2006.01)
C07K 16/28 (2006.01)

(74) Common Representative: GENMAB A/S; Att. ABRA-
HAMSEN, Niels, Toldbodgade 33, DK-1253 Copenhagen
K (DK).

(21) International Application Number:
PCT/DK2006/000669

(22) International Filing Date:
28 November 2006 (28.11.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/740,403 28 November 2005 (28.11.2005) US
60/852,479 17 October 2006 (17.10.2006) US
60/852,611 18 October 2006 (18.10.2006) US

(71) Applicant (for all designated States except US): GEN-
MAB A/S [DK/DK]; Toldbodgade 33, DK-1253 Copen-
hagen K (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PARREN, Paul**
[NL/NL]; Werdorperwaard 17, 3984 PR Odijk (NL).
SCHUURMAN, Janine [NL/NL]; Avogadrostraat 11-3,
1098 SP Amsterdam (NL). **VINK, Tom** [NL/NL];
Schaepmanstraat 25, 2406 DB Alphen aan den Rijn (NL).
BLEEKER, Willem, Karel [NL/NL]; Keizersgracht 704,
1017 EV Amsterdam (NL). **VAN DE WINKEL, Jan, G.J.**
[NL/NL]; Verlengde Slotlaan 80, 3707 CK Zeist (NL).
VAN BERKEL, Patrick [NL/NL]; 3e Westerparklaan
311, 3544 NH Utrecht (NL). **BEURSKENS, Frank**
[NL/NL]; Julianaweg 310, 3523 XK Utrecht (NL).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, 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, LV, LY, MA, MD, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, NL, 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
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: RECOMBINANT MONOVALENT ANTIBODIES AND METHODS FOR PRODUCTION THEREOF

(57) Abstract: The present invention provides monovalent antibodies with a long half-life when administered in vivo, methods of making such monovalent antibodies, pharmaceutical compositions comprising such antibodies, and uses of the monovalent antibodies.

WO 2007/059782 A1