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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007734 A1

(51) International Patent Classification[7]: C12N 15/85

(21) International Application Number:
PCT/KR2003/001400

(22) International Filing Date: 15 July 2003 (15.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10-2002-0041764	16 July 2002 (16.07.2002)	KR
10-2003-0038012	12 June 2003 (12.06.2003)	KR

(71) Applicant *(for all designated States except US)*: **PANGENOMICS CO., LTD.** [KR/KR]; #304 Biotechnology Incubating Center, Seoul National University, San 56-1, Shillim-dong, Kwanak-gu, Seoul 151-742 (KR).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **LEE, Joon Youb** [KR/KR]; 76-503 Hyundai Apt., Apkujung-dong, Kangnam-gu, Seoul 135-110 (KR). **KIM, Dong-Hyeon** [KR/KR]; 1267-329, Mia-6-dong, Kangbuk-gu, Seoul 142-106 (KR). **CHUNG, Yeonseok** [KR/KR]; Hanyang Apt. 10-303, Apkujung-dong, Kangnam-gu, Seoul 135-110 (KR). **CHANG, Sun-Young** [KR/KR]; 5 Fl., #602-15, Sindaebang-dong, Dongjak-gu, Seoul 156-010 (KR). **LEE, Kyung-Chul** [KR/KR]; Banpo Apt. 111-203, Banpobon-dong, Seocho-gu, Seoul 137-049 (KR). **KANG, Chang-Yuil** [KR/KR]; 104-502 Daewoo Hyoryung Apt, Bangbae-dong, Seocho-gu, Seoul 137-060 (KR).

(74) Agents: **JANG, Seongku** et al.; 19th Fl., KEC Building, 275-7, Yangjae-dong, Seocho-ku, Seoul 137-130 (KR).

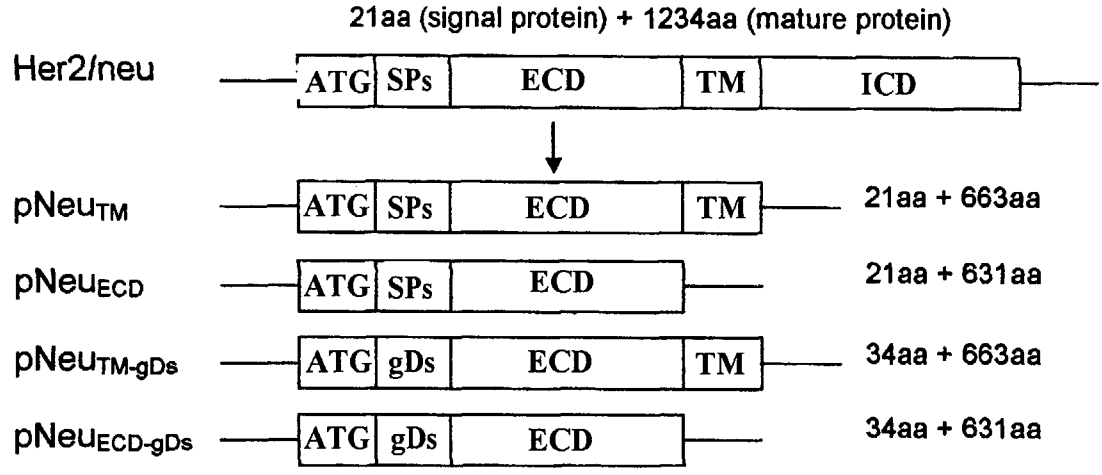
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, 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*
— *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 "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HER-2/NEU DNA VACCINE HAVING ANTI-CANCER ACTIVITY



(57) Abstract: The present invention relates to human Her-2/neu expressing plasmid constructs having anti-cancer activity and a DNA vaccine comprising same for preventing and/or treating cancer. The Her-2/neu DNA vaccines of the present invention can be effectively used as a therapeutic vaccine in reducing metastasis after tumor surgery or as a prophylactic vaccine for people with genetic high risk.

WO 2004/007734 A1