Feb 03

200307282

162162

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 March 2002 (14.03.2002)

PCT

(10) International Publication Number
WO 2002/020718 A3

(51) International Patent Classification[7]: A61K 38/16, 38/18, C07K 14/435, 14/475, C12N 1/21, 5/10, 15/12, 15/63, G01N 33/48

(21) International Application Number:
PCT/US2001/027502

(22) International Filing Date:
4 September 2001 (04.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/230,152	5 September 2000 (05.09.2000)	US
60/307,557	24 July 2001 (24.07.2001)	US

(71) Applicants *(for all designated States except US)*: **THE ROCKEFELLER UNIVERSITY** [US/US]; 1230 York Avenue, New York, NY 10021-6399 (US). **THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA** [US/US]; 3700 Market Street, Suite 300, Philadelphia, PA 19104 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **CHOI, Yongwon** [US/US]; 751 Bryn Mawr Avenue, Bryn Mawr, PA 19010 (US). **KIM, Nacksung** [KR/US]; 333 North Avenue, Apt. 47A, Secane, PA 19018 (US).

(74) Agents: **WOODLEY, Samuel, S.** et al.; Darby & Darby P.C., 805 Third Avenue, New York, NY 10022-7513 (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, EC, EE, ES, FI, GB, GD, GE, 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, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, 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:
10 February 2005

(15) Information about Correction:
Previous Correction:
see PCT Gazette No. 12/2003 of 20 March 2003, 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.

ACTION

(54) Title: OSTEOCLAST-ASSOCIATED RECEPTOR

(57) Abstract: This invention relates to methods and compositions that modulate the activity of cells, such as osteoclast cells, involved in the growth, development, repair, degradation and homeostasis of bone tissue. The compositions may therefore by used to modulate such processes and to treat bone growth related disorders (for example, osteoporosis and osteopetrosis). In particular, the invention provides a novel polypeptide, referred to as the Osteoclast Associated Receptor or OSCAR, that is specifically expressed by oteoclast cells and modulates osteoclast cell activity. OSCAR nucleic acids (including vectors), fusion polypeptides and OSCAR specific antibodies are also provided, as well as diagnostic and screening assays using such nucleic acids, polypeptide and antibodies.

WO 2002/020718 A3