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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 January 2009 (08.01.2009)

PCT

(10) International Publication Number
WO 2009/005171 A1

(51) International Patent Classification:
A61K 31/557 (2006.01) *A61P 29/00* (2006.01)
A61K 45/06 (2006.01) *C07C 405/00* (2006.01)

(21) International Application Number:
PCT/JP2008/062435

(22) International Filing Date: 3 July 2008 (03.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/929,556 3 July 2007 (03.07.2007) US

(71) Applicant *(for all designated States except US)*: **SUCAMPO AG** [CH/CH]; Graben 5, Zug, CH-CH6300 (CH).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **UENO, Ryuji** [JP/US]; 11025 Stanmore Drive, Potomac, Montgomery, Maryland, 20854 (US).

(74) Agents: **TANAKA, Mitsuo** et al.; AOYAMA & PARTNERS, IMP Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka, 5400001 (JP).

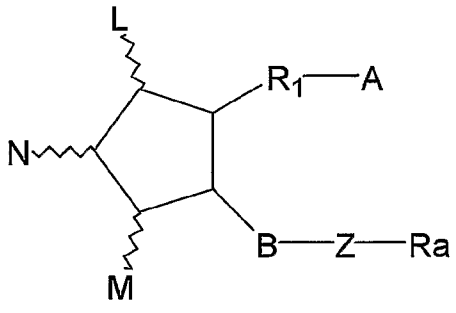
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, 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, ST, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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*

WO 2009/005171 A1

(54) **Title:** PHARMACEUTICAL COMBINATION OF OPIOID AND PROSTAGLANDIN COMPOUND



(I)

(57) **Abstract:** Provided is a pharmaceutical combination of an opioid and a prostaglandin compound of formula (I):. The combination of the invention is useful for the indications for opioid use such as pain from various etiologies.