



(51) International Patent Classification:

C07F 5/02 (2006.01) *A61P 29/00* (2006.01)
A61K 31/69 (2006.01)

(21) International Application Number:

PCT/EP2015/001930

(22) International Filing Date:

1 October 2015 (01.10.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

14003390.3 1 October 2014 (01.10.2014) EP

(71) Applicants: **MERCK PATENT GMBH** [DE/DE]; Frankfurt Strasse 250, 64293 Darmstadt (DE). **LEAD DISCOVERY CENTER GMBH** [DE/DE]; Otto-Hahn-Strasse 15, 44227 Dortmund (DE).

(72) Inventors: **KLEIN, Markus**; Steinstrasse 16b, 64291 Darmstadt (DE). **SCHADT, Oliver**; Forststrasse 4, 63517 Rodenbach (DE). **HASELMAYER, Philipp**; Thorwaldsenanlage 61, 65195 Wiesbaden (DE). **BUSCH, Michael**; Am Steinern Kruez 35, 64297 Darmstadt (DE).

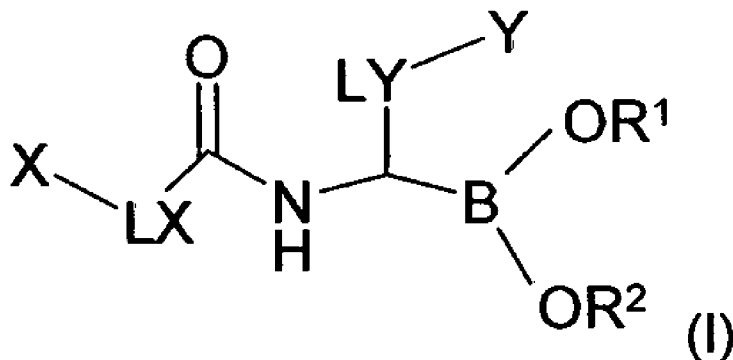
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: BORONIC ACID DERIVATIVES



(57) Abstract: Compounds of formula (I) are inhibitors of LMP7 and can be employed, inter alia, for the treatment of an autoimmune disorder or hematological malignancies.