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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 August 2013 (08.08.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/116296 A1

(51) International Patent Classification:
C07K 16/18 (2006.01) *A61P 29/00* (2006.01)
A61K 39/395 (2006.01)

(21) International Application Number:
PCT/US2013/023784

(22) International Filing Date:
30 January 2013 (30.01.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/592,837	31 January 2012 (31.01.2012)	US
61/644,038	8 May 2012 (08.05.2012)	US
61/692,925	24 August 2012 (24.08.2012)	US

(71) Applicant: **REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US).

(72) Inventors: **MACDONALD, Lynn**; 16 Gedney Way, White Plains, NY 10605 (US). **GAO, Min**; 112 Demarest Lane, Montvale, NJ 07645 (US). **MORRA, Marc., R.**; 108 Foxton Court, Beacon Falls, CT 06403 (US). **ALESS-ANDRI-HABER, Nicole, M.**; 243 Purchase Street, Rye, NY 10580 (US). **LaCROIX-FRALISH, Michael, L.**; 776 Swed Circle, Yorktown Heights, NY 10598 (US).

(74) Agent: **COTTINGHAM, Frank**; Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US).

(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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, 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, ML, MR, NE, SN, TD, TG).

Published:

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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

— *with sequence listing part of description (Rule 5.2(a))*

(54) Title: ANTI-ASIC1 ANTIBODIES AND USES THEREOF

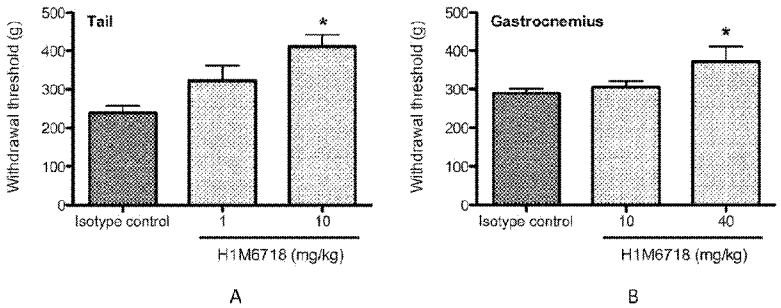


Figure 1

(57) Abstract: The present invention provides antibodies and antigen-binding fragments thereof that specifically bind to cells expressing acid-sensing ion channel-1 (ASIC1). According to certain embodiments of the invention, the antibodies inhibit acid-induced, ASIC1-mediated ion currents in cells expressing human ASIC1. The antibodies of the invention are useful for the treatment of pain, including pain associated with surgical intervention and various diseases and disorders.

WO 2013/116296 A1