

(43) International Publication Date
12 January 2012 (12.01.2012)(10) International Publication Number
WO 2012/004378 A1

(51) International Patent Classification:

C07D 265/36 (2006.01) A61K 31/4355 (2006.01)
C07D 491/107 (2006.01) A61K 31/5386 (2006.01)
C07D 491/20 (2006.01) A61P 25/00 (2006.01)
A61K 31/407 (2006.01)

(21) International Application Number:

PCT/EP2011/061599

(22) International Filing Date:

8 July 2011 (08.07.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/362,782	9 July 2010 (09.07.2010)	US
10169104.6	9 July 2010 (09.07.2010)	EP
61/444,186	18 February 2011 (18.02.2011)	US
11154961.4	18 February 2011 (18.02.2011)	EP

(71) Applicant (for all designated States except US): **ABBOTT HEALTHCARE PRODUCTS B.V.** [NL/NL]; C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **STOIT, Axel** [NL/NL]; c/o Abbott Healthcare Products B.V., C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL). **IWEMA BAKKER, Wouter, I.** [NL/NL]; c/o Abbott Healthcare Products B.V., C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL). **COOLEN, Hein K.A.C.** [NL/NL]; c/o Abbott Healthcare Products B.V., C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL). **VAN DONGEN, Maria J.P.** [NL/NL]; c/o Abbott Healthcare Products B.V., C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL). **LEFLEMME, Nicolas J.-L.D.** [FR/NL]; c/o Abbott Healthcare Products B.V., C.J. van Houtenlaan 36, NL-1381 CP Weesp (NL).

(74) Agent: **JANSEN, C. M.**; Vereenigde, Johan de Wittlaan 7, NL-2517 JR Den Haag (NL).

[Continued on next page]

(54) Title: SPIRO-CYCLIC AMINE DERIVATIVES AS S1P MODULATORS

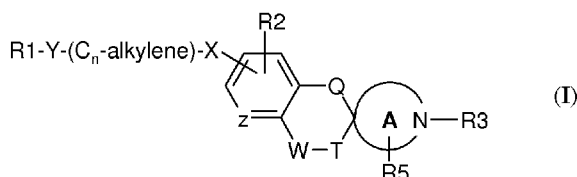
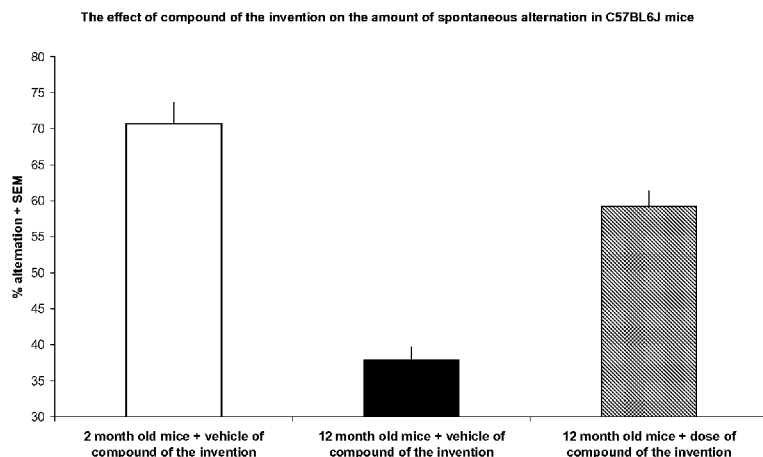


Fig 1.



(57) Abstract: The present invention relates spiro- cyclic amine derivatives of the formula (I) wherein R1; R2; R3; Q; -W-T-; R5; Z; and A have the definitions provided in the claims; or a pharmaceutically acceptable salt, a solvate or hydrate thereof or one or more N-oxides thereof. The compounds of the invention have affinity to S1P receptors and may be used in the treatment, alleviation or prevention of diseases and conditions in which (a) S1P receptor (s) is (are) involved.



(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, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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))