



(51) International Patent Classification:

A61K 31/407 (2006.01) C07D 487/10 (2006.01)
A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2015/026098

(22) International Filing Date:

16 April 2015 (16.04.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/980,747 17 April 2014 (17.04.2014) US

(71) Applicant: THE REGENTS OF THE UNIVERSITY OF MICHIGAN [US/US]; Office Of Technology Transfer, 1600 Huron Parkway, 2nd Floor, Ann Arbor, MI 48109-2590 (US).

(72) Inventors: WANG, Shaomeng; 9343 Torkshire Dr., Saline, MI 48176 (US). AGUILAR, Angelo; 2364 Stone Rd., Ann Arbor, MI 48105 (US). LIU, Liu; 2358 Spring Ridge Ct, Ann Arbor, MI 48103 (US). LU, Jianfeng; 2600 Arrowwood Tri, Ann Arbor, MI 48109 (US). MCEACHERN, Donna; 2208 Glencoe Hills Dr. Apt. 2, Ann Arbor, MI 48108 (US).

(74) Agent: PLUMMER, Kelly, A.; Marshall, Gerstein & Borun LLP, 233 S. Wacker Drive, 6300 Willis Tower, Chicago, IL 60606-6357 (US).

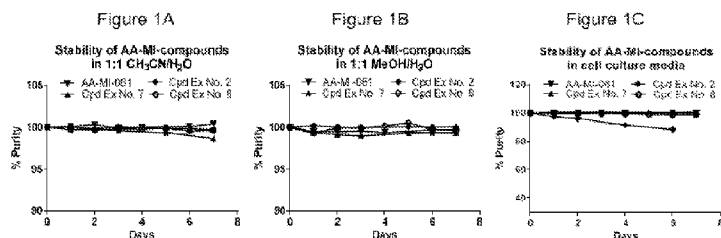
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, 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: MDM2 INHIBITORS AND THERAPEUTIC METHODS USING THE SAME



Chemical stability comparison of AA-MI-061, Cpd Ex No. 2, Cpd Ex No. 7 and Cpd Ex No. 8 in
Figure 1A. 1:1 CH₃CN to H₂O; Figure 1B. 1:1 MeOH to H₂O; and Figure 1C. cell culture media

(57) Abstract: Inhibitors of MDM2 and MDM2-related proteins and compositions containing the same are disclosed. Methods of using the MDM2 inhibitors in the treatment of diseases and conditions wherein inhibition of an interaction between p53 and MDM2 provides a benefit, like cancers, also are disclosed.