

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 July 2019 (25.07.2019)



(10) International Publication Number
WO 2019/144089 A1

(51) International Patent Classification:
C07D 471/04 (2006.01)

(21) International Application Number:
PCT/US2019/014461

(22) International Filing Date:
22 January 2019 (22.01.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/620,065 22 January 2018 (22.01.2018) US

(71) Applicant: TAIGEN BIOTECHNOLOGY CO., LTD.;
7F, 138 Shin Ming Rd., Neihu Dist, Taipei, 114 (TW).

(72) Inventors: HSU, Ming-Chu; 1535 Agnew Road, Santa Clara, CA 95054 (US). LIN, Chu-Chung; 2F, No. 25, Alley 6, Lane 621, Bei-an Rd., Zhongshan Dist., Taipei City (TW). CHEN, Hung-Chuan; 29F, No. 188, Dec. 2, Zintai 5th Rd., XiZhi Dist., New Taipei City 221 (TW). CHIANG, Chiayn; 8F-1, No.262, Zhonghe Road, Zhonghe Dist., New Taipei City 235 (TW). YEN, Chi-Feng; 6F., No. 149, Sec. 6, Nanjing E. Road, Neihu Dist., Taipei City (TW).

(74) Agent: TSAO, Y., Rocky; Cesari and McKenna, LLP, One Liberty Square, Boston, MA 02109 (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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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.

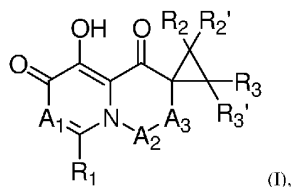
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,

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: CAP-DEPENDENT ENDONUCLEASE INHIBITORS



(I),

(57) Abstract: Provided is a compound of Formula (I) below, or a pharmaceutically acceptable salt, metabolite, or prodrug thereof; wherein Formula (I): A₁ is CR₄ or N; A₂ is CR₅' R₆' or NR₇'; A₃ is CR₅' R₆' or NR₇'; each of R₁, R₂, R₂', R₃, R₃', R₄, R₅, R₅', R₆', R₇, and R₇', independently, is hydrogen, deuterium, halogen, cyano, hydroxyl, carboxyl, amino, formyl, nitro, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₁₋₆ alkoxy, C₂₋₆ alkenyloxy, C₁₋₆ alkyl-carbonyl, C₁₋₆ alkyloxycarbonyl, C₁₋₆ alkylamine, C₃₋₂₀ carbocyclyl, or C₃₋₂₀ heterocyclyl; or R₅ and R₆, R₅' and R₆', or R₅ and R₅', together with the adjacent atom to which they are each attached, form C₃₋₁₀ carbocyclyl or C₃₋₁₀ heterocyclyl. Further provided are a method of using the above-described compound, or the pharmaceutically acceptable salt, metabolite, or prodrug thereof for treating influenza and a pharmaceutical composition containing same.

WO 2019/144089 A1