

(19)



(11) Publication number:

SG 190785 A1

(43) Publication date:

31.07.2013

(51) Int. Cl:

C07D 403/14, C07D 405/14,
C07D 417/14, C07D 471/08,
C07D 491/10, C07D 493/04,
C07D 495/04, C07D 513/04,
A61K 31/4178, A61K 31/4184,
A61K 31/4188, A61P 31/12,
A61K 45/06;

(12)

Patent Application

(21) Application number: **2013036223**

(71) Applicant:

GILEAD SCIENCES, INC. 333 LAKESIDE
DRIVE, FOSTER CITY, CALIFORNIA
94404 CA US

(22) Date of filing: **16.11.2011**

(30) Priority: **US 61/414,818 17.11.2010**

US 61/504,924 06.07.2011

(72) Inventor:

BACON, ELIZABETH, M. C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
COTTELL, JEROMY, J. C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
KATANA, ASHLEY, ANNE C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
KATO, DARRYL C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
KRYGOWSKI, EVAN, S. C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
LINK, JOHN, O. C/O GILEAD SCIENCES,
INC. 333 LAKESIDE DRIVE FOSTER
CITY, CA 94404 US
TAYLOR, JAMES C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
TRAN, CHINH, VIET C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US
TREJO MARTIN, TERESA, ALEJANDRA
C/O GILEAD SCIENCES, INC. 333
LAKESIDE DRIVE FOSTER CITY, CA
94404 US
YANG, ZHENG-YU C/O GILEAD
SCIENCES, INC. 333 LAKESIDE DRIVE
FOSTER CITY, CA 94404 US

(54) Title:

ANTIVIRAL COMPOUNDS

(57) Abstract:

The invention is related to anti-viral compounds, compositions containing such compounds, and therapeutic methods that include the administration of such compounds, as well as to processes and intermediates useful for preparing such compounds.



(51) International Patent Classification:

C07D 403/14 (2006.01) *C07D 495/04* (2006.01)
C07D 405/14 (2006.01) *C07D 513/04* (2006.01)
C07D 417/14 (2006.01) *A61K 31/4178* (2006.01)
C07D 471/08 (2006.01) *A61K 31/4184* (2006.01)
C07D 491/10 (2006.01) *A61K 31/4188* (2006.01)
C07D 493/04 (2006.01) *A61P 31/12* (2006.01)

(21) International Application Number:

PCT/US2011/060966

(22) International Filing Date:

16 November 2011 (16.11.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/414,818 17 November 2010 (17.11.2010) US
61/504,924 6 July 2011 (06.07.2011) US

(71) Applicant (for all designated States except US): **GILEAD SCIENCES, INC.** [US/US]; 333 Lakeside Drive, Foster City, California 94404 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BACON, Elizabeth, M.** [US/US]; 1218 Floribunda Ave., Apt. 8, Burlingame, California 94010 (US). **COTTELL, Jeromy, J.** [US/US]; 701 Baltic Circle, #719, Redwood City, California 94065 (US). **KATANA, Ashley, Anne** [US/US]; 2201 Bridgepoint Parkway, #205, San Mateo, California 94404 (US). **KATO, Darryl** [US/US]; 223 Connecticut Street, San Francisco, California 94107 (US). **KRYGOWSKI, Evan, S.** [US/US]; 3805 Bent Branch Road, Falls Church, Virginia 22041 (US). **LINK, John, O.** [US/US]; 74 Prospect Avenue, San Francisco, California 94110 (US). **TAYLOR, James** [US/US]; 100 State Street, San Mateo, California 94401 (US). **TRAN, Chinh, Viet** [US/US]; 10322 Baron Drive, San Diego, California 92126 (US). **TREJO MAR-**

TIN, Teresa, Alejandra [US/US]; 32772 S. Artistry Loop, Union City, California 94587 (US). **YANG, Zheng-Yu** [US/US]; 338 El Carmelo Avenue, Palo Alto, California 94306 (US). **ZIPFEL, Sheila** [US/US]; 22 N. San Mateo Drive, Apt. 205, San Mateo, California 94401 (US).

(74) Agents: **HARRIS, Robert, J.** et al.; Viksnins Harris & Padys PLLP, P.O. Box 111098, St. Paul, Minnesota 55111-1098 (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, 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, 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, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: ANTIVIRAL COMPOUNDS

(57) Abstract: The invention is related to anti-viral compounds, compositions containing such compounds, and therapeutic methods that include the administration of such compounds, as well as to processes and intermediates useful for preparing such compounds.



WO 2012/068234 A2