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RESEARCH**

APPLICATION NUMBER:

208351Orig1s000

MICROBIOLOGY / VIROLOGY REVIEW(S)

DIVISION OF ANTIVIRAL PRODUCTS (HFD-530)
VIROLOGY REVIEW
NDA: 208351 SDN: 001 DATE REVIEWED: 12/01/2015
Virology Reviewer: Lisa K. Naeger, Ph.D.

NDA#: 208,351

Serial #: 000

Reviewer's Name(s): Lisa K. Naeger, Ph.D.

Sponsor's Name and Address:

Gilead Sciences

Initial Submission Dates:

Correspondence Date: 07/01/15

CDER Receipt Date: 07/01/15

Assigned Date: 07/02/15

Review Complete Date: 12/01/15

PDUFA Date: March 1, 2016

Amendments:

SDN	CDER Stamp Date	Assigned Date
006	09/04/2015	10/15/2015
010	11/06/2015	11/09/2015

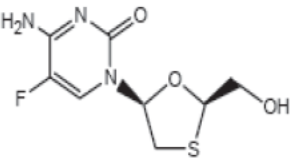
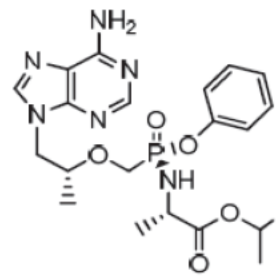
Related/Supporting Documents: (b) (4); IND53971; NDA21500; IND63737; IND111007; IND67699, NDA202022, NDA202123, NDA207561

Product Name(s)

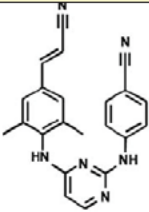
Proprietary:

Non-Proprietary/USAN: rilpivirine/emtricitabine/tenofovir alafenamide

Code Name/Number: TMC278/FTC/TAF

Individual Component	FTC	TAF
Structure		
Chemical Names	5-fluoro-1-(2R,5S)-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]cytosine	L-Alanine, N-[(S)-[[[(1R)-2-(6-amino-9H-purin-9-yl)-1-methylethoxy]methyl]phenoxyphosphinyl]-, 1-methylethyl ester, (2E)-2-butenedioate (b) (4); 1)
Molecular Formula	C ₈ H ₁₀ FN ₃ O ₃ S	C ₂₅ H ₃₃ O ₉ N ₆ P
Molecular Weight	247.24	(b) (4)
Drug Class	NRTI	NRTI
Supporting Document	(b) (4); IND 53971; NDA 21500;	IND 63737; IND 111007; NDA207561

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Virology Reviewer: Lisa K. Naeger, Ph.D.

Individual Component	Rilpivirine	
Structure		
Chemical Names	4-[[4-[[4-[(1E)-2-cyanoethyl]-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile	
Molecular Formula	C ₂₂ H ₁₈ N ₆	
Molecular Weight	(b) (4)	
Drug Class	NNRTI	
Supporting Document	IND67699, NDA202022	

Dosage Form(s):

Route(s) of Administration: Oral

Indication(s): Treatment of HIV-1 infection in ARV treatment-naive adult patients

Dispensed: Rx OTC _____

Abbreviations: EC₅₀, effective concentration at 50%; EFV, efavirenz; ENF, enfuvirtide; ETR, etravirine; EVG, elvitegravir; FC, fold change; HSA, human serum albumin; IC₅₀, inhibitory concentration at 50%; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside reverse transcriptase inhibitor; NVP, nevirapine; PBL, peripheral blood lymphocytes; PI, protease inhibitor; PR, protease; RAMs, resistant-associated mutations; RPV, rilpivirine; RT, reverse transcriptase; SDM, site-directed mutants; TAF, tenofovir alafenamide fumarate; TDF, tenofovir disoproxil fumarate; TFV, tenofovir (active moiety of the diester prodrugs TAF and TDF)

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This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

LISA K NAEGER
12/02/2015

JULIAN J O REAR
12/02/2015