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RESEARCH**

APPLICATION NUMBER:

210455Orig1s000

CLINICAL MICROBIOLOGY/VIROLOGY
REVIEW(S)

DIVISION OF ANTIVIRAL PRODUCTS (HFD-530)
VIROLOGY REVIEW
NDA: 210455 SDN: 000 DATE REVIEWED: May 14, 2018
Virology Reviewer: Lisa K. Naeger, Ph.D

Initial Submission Dates:

Correspondence Date: 09/22/2017
 CDER Receipt Date: 09/22/2017
 Assigned Date: 09/22/2017
 Review Complete Date: 06/13/2018
 PDUFA Date: 07/20/2018

Amendments:

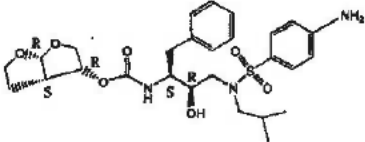
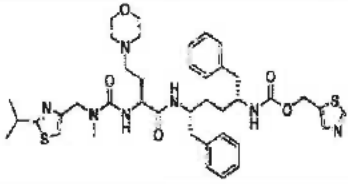
SDN	Date Submitted	Date Received	Date Assigned
002	10/23/2017	10/23/2017	11/20/2017
005	11/17/2017	11/17/2017	11/20/2017
015	03/19/2018	03/19/2018	03/19/2018
016	03/19/2018	03/19/2018	03/19/2018
017	04/13/2018	04/13/2018	04/16/2018
018	05/10/2018	05/10/2018	05/11/2018

Product Name(s)

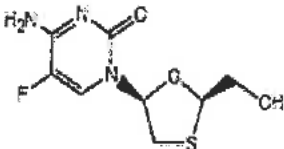
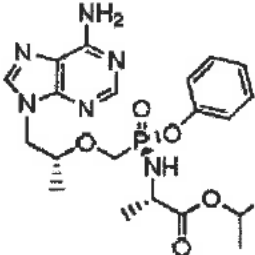
Proprietary: SYMTUZA

Non-Proprietary/USAN: darunavir/cobi/emtricitabine/tenofovir alafenamide fumarate

Product Name : Fixed dose combination of darunavir/cobi/emtricitabine/tenofovir alafenamide fumarate

Product Name	Darunavir	COBI
Chemical Structure		
Chemical Name	Sodium (4R,9aS)-5-Hydroxy-4-methyl-6,10-dioxo-3,4,6,9,9a,10-hexahydro-2H-1-oxa-4a,8a-diaza-anthracene-7-carboxylic acid 2,4-difluoro-benzylamide	1,3-thiazol-5-ylmethyl[(2R,5R)-5-[[[(2S)-2-[(methyl[2-(propan-2-yl)-1,3-thiazol-4-yl]methyl]carbamoyl)amino]-4-(morpholin-4-yl)butanoyl]amino]-1,6-diphenylhexan-2-yl]carbamate
Molecular formula:	C ₂₇ H ₃₇ N ₃ O ₇ S · C ₂ H ₅ OH	C ₄₀ H ₅₃ N ₇ O ₅ S ₂
Molecular weight	Relative molecular mass: 547.656 (active moiety) + 46.068 (ethanol, EtOH) = 593.724 (TMC 114-ethanolate)	776.02
Drug Class	Protease Inhibitor	Pharmacoenhancer (No anti-HIV-1 activity in cell culture)
Supporting Document	NDA 21,976 SE5-006 and -007; IND-62477	IND (b) (4) NDA 203094
Product Name	FTC	TAF

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Chemical Structure		
Chemical Name	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 (1:1)
Molecular formula:	C ₈ H ₁₀ FN ₃ O ₃ S	C ₂₅ H ₃₃ O ₉ N ₈ P
Molecular weight	247.24	592.54 Da
Drug Class	NRTI	NRTI
Supporting Document	IND (b)(4) IND 53971; NDA 21500;	IND 63737; IND 111007

Drug category: Antiviral

Indication: HIV-1 infection

Dosage Form/Route of administration: Fixed-dose tablet/oral

The Clinical Virology Review is complete, and has been added to the NDA-210455 Multidisciplinary Review and Evaluation. My recommendation for this application is approval.

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
06/07/2018

JULIAN J O REAR
06/07/2018