



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	Tenofovir disoproxil fumarate
Catalog Number:	10198
Lot Number:	NG41-110-2
Release Category:	A
Provided:	20 mg
Chemical Name:	2, 4, 6, 8-Tetraoxa-5-phosphanonanedioic acid 5-[[(1R) -2-(6-amino-9H-purin-9-yl)-1-methylethoxy]-methyl]-bis (1-methylethyl) ester 5-oxide (2E)-2-butenedioate (1:1)
Empirical Formula:	C ₁₉ H ₃₀ N ₅ O ₁₀ P· C ₄ H ₄ O ₄
Molecular Weight:	635.5
CAS Num:	202138-50-9
Purity:	98.3% (by HPLC)
Solubility:	Soluble in water at 13.4mg/mL; Also soluble in methanol and moderately soluble in ethyl acetate and methylene chloride. Insoluble in hexanes.
Mechanical Action:	Tenofovir disoproxil fumarate is a prodrug of Tenofovir (catalog number 10199). Cellular enzymes convert tenofovir disoproxil fumarate to tenofovir diphosphate. Tenofovir diphosphate inhibits the activity of HIV reverse transcriptase by competing with the natural substrate, deoxyadenosine 5'-triphosphate, which after incorporation causes chain termination. Tenofovir diphosphate is a weak inhibitor of mammalian DNA polymerases.

ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

Special Characteristics: [Click here for the SDS](#)

Recommended Storage: Room temperature. Once resuspended, working aliquots can be stored at -20°C .

Contributor: Division of AIDS, NIAID

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, NIAID, NIH: Tenofovir disoproxil fumarate."
Recipient agrees that the reagent (Tenofovir disoproxil fumarate) use is permitted only as a standard for in vitro and/or studies in animals for inhibition of HIV replication.

Last Updated November 25, 2019

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