



## NIH AIDS Reagent Program

20301 Century Boulevard  
Building 6, Suite 200  
Germantown, MD 20874  
USA

Phone: 240 686 4740  
Fax: 301 515 4015  
aidsreagent.org

### DATA SHEET

<b>Reagent:</b>	Tenofovir
<b>Catalog Number:</b>	10199
<b>Lot Number:</b>	15553WB-64
<b>Release Category:</b>	A
<b>Provided:</b>	20 mg
<b>Chemical Name:</b>	Phosphonic acid [[[1R)-2-(6-amino-9H-purin-9-yl)-1-methylethoxy]methyl]-monohydrate
<b>Empirical Formula:</b>	$C_9H_{14}N_5O_4P \cdot H_2O$
<b>Molecular Weight:</b>	305.2 for material containing 1 mol H <sub>2</sub> O
<b>CAS Num:</b>	147127-20-6 (anhydrous form)
<b>Purity:</b>	99.92% (by HPLC)
<b>Solubility:</b>	Water; moderately soluble in methanol and ethanol; insoluble in ethyl acetate, acetone or methylene chloride.
<b>Mechanical Action:</b>	Tenofovir is a cyclic nucleoside phosphonate analogue of adenosine monophosphate. Tenofovir is phosphorylated by cellular enzymes and inhibits the activity of HIV reverse transcriptase by competing with deoxyadenosine 5'-triphosphate. Incorporation of nucleotide analogue causes DNA chain termination.
<b>Recommended Storage:</b>	Room temperature. Once resuspended, working aliquots can be stored at 4°C.

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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.

**Contributor:** Division of AIDS, NIAID.

**NOTE:** Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: Tenofovir."

Recipient agrees that the reagent (Tenofovir) 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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