# MCE ®

## **Tenofovir diphosphate**

Cat. No.: HY-136548 CAS No.: 166403-66-3 Molecular Formula:  $C_9H_{16}N_5O_{10}P_3$ 

Molecular Weight: 447.17

Target: Reverse Transcriptase

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

### **BIOLOGICAL ACTIVITY**

Description	Tenofovir diphosphate (TFV-DP) is a competitive DNA polymerases inhibitor (with respect to dATP) and a substrate of HIV type 1 (HIV-1) reverse transcriptase (RT) $^{[1]}$ .
IC <sub>50</sub> & Target	DNA polymerases; HIV-1 reverse transcriptase <sup>[1]</sup>
In Vitro	Tenofovir diphosphate acts as an inhibitor of DNA pol. Tenofovir-diphosphate is a weak inhibitor of DNA polymerases (pol) $\alpha$ , $\delta$ , and $\epsilon$ , with values for the $K_i$ for PMPApp (PMPApp $K_i$ ) relative to the $K_m$ for dATP (dATP $K_m$ ) of 10.2, 10.2, and 15.6, respectively <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### **CUSTOMER VALIDATION**

• Hepatol Commun. 25 August 2021.

See more customer validations on www.MedChemExpress.com

#### **REFERENCES**

[1]. Gabriel Birkus, et al. Tenofovir Diphosphate Is a Poor Substrate and a Weak Inhibitor of Rat DNA Polymerases Alpha, Delta, and epsilon. Antimicrob Agents Chemother. 2002 May;46(5):1610-3.

Caution: Product has not been fully validated for medical applications. For research use only.

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