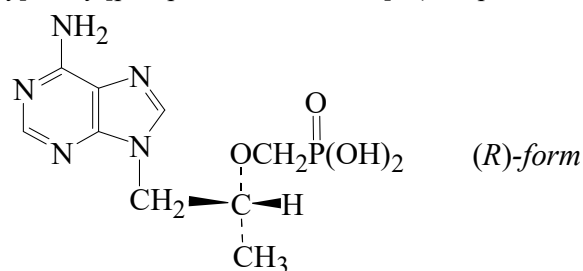




>>Entry Name: **Tenofovir**, INN, USAN

Synonym(s): [[2-(6-Amino-9*H*-purin-9-yl)-1-methylethoxy]methyl]phosphonic acid, 9Cl. 9-[2-(Phosphonomethoxy)propyl]adenine. PMPA



CAS Registry Number: 107021-12-5

Related CAS Registry Numbers(s): 121149-89-1

Molecular Formula: C₉H₁₄N₅O₄P

Molecular Weight: 287.215

Accurate Mass: 287.078342

Percentage Composition: C 37.64%; H 4.91%; N 24.38%; O 22.28%; P 10.78%

Biological Use/Importance: Anti-HIV agent

Other Data: Congener of Adefovir [MXQ17-Q](#)

>>Variant: (*R*)-form

CAS Registry Number: 147127-20-6

Molecular Formula: C₉H₁₄N₅O₄P

Molecular Weight: 287.215

Accurate Mass: 287.078342

Percentage Composition: C 37.64%; H 4.91%; N 24.38%; O 22.28%; P 10.78%

Physical Description: Cryst.

Melting Point: Mp 279°

Optical Rotation: [α]_D -21.2 (c, 0.5 in 0.1*M* HCl)

Other Data: Pharmacol. active isomer

>>Derivative: Bis(1-methylethoxycarbonyloxymethyl) ester

Molecular Formula: C₁₉H₃₀N₅O₁₀P

Molecular Weight: 519.447

Accurate Mass: 519.173032

Percentage Composition: C 43.93%; H 5.82%; N 13.48%; O 30.80%; P 5.96%

Biological Use/Importance: Prodrug of PMPA with improved bioavailability. Anti-HIV activity more than 100 times greater than PMPA

Physical Description: Characterised by pmr and ms

>>Derivative: Bis(1-methylethoxycarbonyloxymethyl) ester, fumarate

Synonym(s): **Tenofovir disoproxil fumarate**, USAN. GS 4331-05

CAS Registry Number: 202138-50-9

Biological Use/Importance: Reverse transcriptase inhibitor. Antiviral agent

>>Variant: (*S*)-form

CAS Registry Number: 147127-19-3

Molecular Formula: C₉H₁₄N₅O₄P

Molecular Weight: 287.215

Accurate Mass: 287.078342

Percentage Composition: C 37.64%; H 4.91%; N 24.38%; O 22.28%; P 10.78%

Melting Point: Mp 276-278°

Optical Rotation: [α]_D +21.2 (c, 0.5 in 0.1*M* HCl)

References: