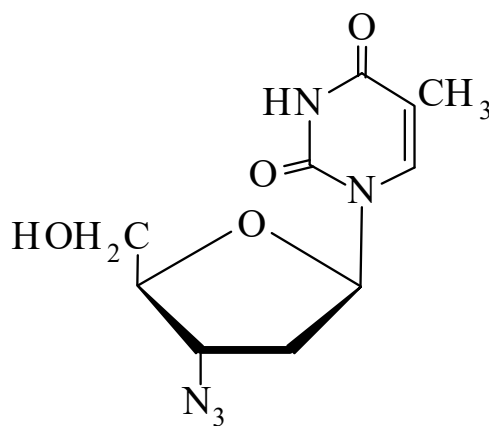




>>Entry Name: Zidovudine, BAN, INN, USAN

Synonym(s): 3'-Azido-3'-deoxythymidine, 9Cl. 3'-Azidothymidine. Apovir. Novo-AZT. Retrovir. Zidovir. AZT. BW A509U. NSC 602670



CAS Registry Number: 30516-87-1

Molecular Formula: C₁₀H₁₃N₅O₄

Molecular Weight: 267.244

Accurate Mass: 267.096755

Percentage Composition: C 44.94%; H 4.90%; N 26.21%; O 23.95%

Biological Use/Importance: Antiviral agent active exclusively against retroviruses, esp. AIDS virus and leukaemias. Drugs of choice for AIDS treatment. Nucleoside transporter substrate

Physical Description: Needles (Et₂O)

Development Status: Marketed drug. Launched 1987. As Combivir (combination product with Lamivudine [NDR67-L](#)), worldwide 52nd best selling prescription drug (\$0.85 bn) (GlaxoSmithKline) (2000, Pharma Business)

Melting Point: Mp 106-112°. Mp 119-121° (after drying)

Optical Rotation: $[\alpha]_D^{25} +99$ (c, 0.5 in H₂O)

Other Data: Component of Combivir

Aldrich: 32360-8

Fluka: 11546

Sigma: A2169

>>Derivative: Phosphate (ester)

Synonym(s): 3'-Azido-3'-deoxy-5'-thymidylic acid, 9Cl

CAS Registry Number: 29706-85-2

Molecular Formula: C₁₀H₁₄N₅O₇P

Molecular Weight: 347.224

Accurate Mass: 347.063087

Percentage Composition: C 34.59%; H 4.06%; N 20.17%; O 32.25%; P 8.92%

Physical Description: Needles (as NH₄ salt)

Melting Point: Mp 199-200° (NH₄ salt)

Sigma: A6806

>>Derivative: Phosphate, 2-(decyloxy)-3-(dodecylthio)propyl ester

>>Derivative: 5'-Triphosphate

CAS Registry Number: 92586-35-1

Molecular Formula: C₁₀H₁₆N₅O₁₃P₃

Molecular Weight: 507.184

Accurate Mass: 506.995751

Percentage Composition: C 23.68%; H 3.18%; N 13.81%; O 41.01%; P 18.32%

Biological Use/Importance: HIV reverse transcriptase inhibitor. Active metabolite of zidovudine

Physical Description: Oil