

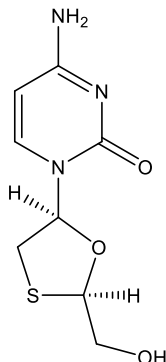


Catalog # 10-2028

Lamivudine

CAS# 134678-17-4

4-Amino-1-[(2R,5S)-2-(hydroxymethyl)1,3-oxathiolan-5-yl]-2(1H)-pyrimidinone; (-)-BCH-189; 3TC
Lot # X108447



Lamivudine is a nucleoside analog reverse transcriptase inhibitor.¹ A potent and selective inhibitor of human immunodeficiency virus type 1 (HIV-1) and type 2 (HIV-2).² Displays anti-inflammatory effects, including reduction of inflammasome-related proteins P2X7 and NLRP3, in retinal microvascular endothelial cells treated with high glucose and LPS as well as in streptozotocin diabetic mice.³ Disrupts repeat element life cycle in colorectal cancer.⁴

- 1) Arts and Wainberg (1996), *Mechanism of nucleoside analog antiviral activity and resistance during human immunodeficiency virus reverse transcription*; *Antimicrob. Agents Chemother.*, **40** 527
- 2) Coates *et al.* (1992), *(-)-2'-deoxy-3'-thiacytidine is a potent, highly selective inhibitor of human immunodeficiency virus type 1 and type 2 replication in vitro*; *Antimicrob. Agents Chemother.*, **36** 733
- 3) Kong *et al.* (2022), *Targeted P2X7/NLRP3 signaling pathway against inflammation, apoptosis, and pyroptosis of retinal endothelial cells in diabetic retinopathy*; *Cell Death Dis.*, **13** 336
- 4) Rajukar *et al.* (2022), *Reverse Transcriptase Inhibition Disrupts Repeat Element Life Cycle in Colorectal Cancer*, *Cancer Discov.*, 1117.2021 Online ahead of print

PHYSICAL DATA

Molecular Weight:	229.25
Molecular Formula:	C ₈ H ₁₁ N ₃ O ₃ S
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (30 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.