

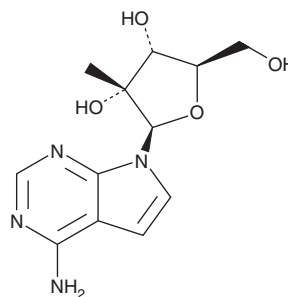
PRODUCT INFORMATION



Lamevudine

Item No. 39925

CAS Registry No.: 443642-29-3
Formal Name: 7-(2-C-methyl-β-D-ribofuranosyl)-7H-pyrrolo[2,3-d]pyrimidin-4-amine
Synonyms: 7-Deaza-2'-C-methyladenosine, MK-0608
MF: C₁₂H₁₆N₄O₄
FW: 280.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lamevudine is supplied as a solid. A stock solution may be made by dissolving the lamevudine in the solvent of choice, which should be purged with an inert gas. Lamevudine is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Lamevudine is an antiviral.¹ It selectively inhibits wild-type hepatitis C virus (HCV) non-structural protein 5BΔ55 (NS5BΔ55) over NS5BΔ55 harboring a serine-to-threonine substitution at residue 282 (NS5BΔ55^{S282T}; IC₅₀s = 0.07 and 25 μM, respectively). Lamevudine selectively inhibits replication of HCV replicons in wild-type HBI10A cells over HBI10A cells expressing NS5BΔ55^{S282T} (EC₅₀s = 0.3 and 10.1 μM, respectively). *In vitro*, it reduces the cytopathic effect of positive-strand RNA viruses in the families *Flaviviridae* (EC₅₀s = 0.3-15 μM) and *Picornaviridae* (EC₅₀s = 0.5-5.9 μM) but not viruses of the negative-strand RNA virus family *Paramyxoviridae*. It inhibits the cytopathic effect and reduces virus yields of the Zika virus strain MR766 in infected Vero cells (EC₅₀s = 20 and 9.6 μM, respectively).² It also reduces serum viral load and delays virus-induced morbidity and mortality in AG129 mice, which lack lfn-α/β and lfn-γ receptors, infected with Zika virus when administered at a dose of 50 mg/kg per day.

References

- Olsen, D.B., Eldrup, A.B., Bartholomew, L., *et al.* A 7-deaza-adenosine analog is a potent and selective inhibitor of hepatitis C virus replication with excellent pharmacokinetic properties. *Antimicrob. Agents Chemother.* **48(10)**, 3944-3953 (2004).
- Zmurko, J., Marques, R.E., Schols, D., *et al.* The viral polymerase inhibitor 7-deaza-2'-C-methyladenosine is a potent inhibitor of *in vitro* Zika virus replication and delays disease progression in a robust mouse infection model. *PLoS Negl. Trop. Dis.* **10(5)**, e0004695 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/28/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM