

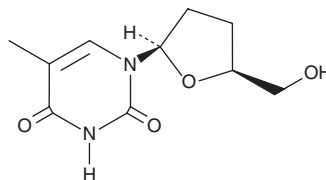
PRODUCT INFORMATION



3'-deoxy Thymidine

Item No. 33939

CAS Registry No.: 3416-05-5
Synonyms: 2',3'-Dideoxythymidine, d2T, ddThd
MF: $C_{10}H_{14}N_2O_4$
FW: 226.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 269 nm
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

3'-deoxy Thymidine is supplied as a solid. A stock solution may be made by dissolving the 3'-deoxy thymidine in the solvent of choice, which should be purged with an inert gas. 3'-deoxy Thymidine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 3'-deoxy thymidine in these solvents is approximately 20 and 25 mg/ml, respectively.

3'-deoxy Thymidine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3'-deoxy thymidine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 3'-deoxy Thymidine has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3'-deoxy Thymidine is a nucleoside analog of thymidine (Item No. 20519) that has antiviral activity.¹ It inhibits HIV replication in infected human peripheral blood mononuclear cells (PBMCs; $EC_{50} = 0.17 \mu\text{M}$).² 3'-deoxy Thymidine (1, 3, 10, or 30 μM) reduces viral plaque formation in CV-1 cells infected with herpes simplex virus 1 (HSV-1).¹

References

1. Waqar, M.A., Evans, M.J., Manly, K.F., *et al.* Effects of 2',3'-dideoxynucleosides on mammalian cells and viruses. *J. Cell. Physiol.* **121**(2), 402-408 (1984).
2. Lin, T.-S., Schinazi, R.F., and Prusoff, W.H. Potent and selective in vitro activity of 3'-deoxythymidin-2'-ene (3'-deoxy-2',3'-didehydrothymidine) against human immunodeficiency virus. *Biochem. Pharmacol.* **36**(17), 2713-2718 (1987).

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.

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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