

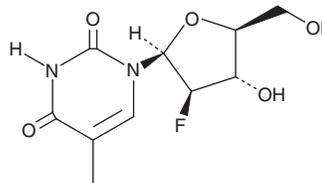
# PRODUCT INFORMATION



## Clevudine

Item No. 30612

**CAS Registry No.:** 163252-36-6  
**Formal Name:** 1-(2-deoxy-2-fluoro-β-L-arabinofuranosyl)-5-methyl-2,4(1H,3H)-pyrimidinedione  
**Synonyms:** Levovir, L-FMAU  
**MF:** C<sub>10</sub>H<sub>13</sub>FN<sub>2</sub>O<sub>5</sub>  
**FW:** 260.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 210, 265 nm  
**Supplied as:** A crystalline 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

Clevudine is supplied as a crystalline solid. A stock solution may be made by dissolving the clevudine in the solvent of choice, which should be purged with an inert gas. Clevudine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of clevudine in these solvents is approximately 30 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of clevudine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of clevudine in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Clevudine is a β-L-nucleoside analog of thymidine (Item No. 20519) that has antiviral activity.<sup>1-3</sup> It is active against hepatitis B virus (HBV) in HepG2/2.15 cells with an EC<sub>50</sub> value of 0.1 μM.<sup>3</sup> Clevudine (0.01-10 μM) reduces virion DNA in the culture supernatant of primary hepatocytes isolated from a duckling model of chronic HBV infection.<sup>4</sup> Oral administration of clevudine (3 and 10 mg/kg) reduces serum viral load in a woodchuck model of chronic HBV infection.<sup>5</sup>

### References

1. Painter, G.R., Trost, L.C., Blum, M.R., et al. *Frontiers in Viral Hepatitis*. Schinazi, R.F., Sommadossi, J.-P., and Rice, C.M., editors, Elsevier B.V. (2003).
2. Fung, J., Lai, C.-L., Seto, W.-K., et al. *J. Antimicrob. Chemother.* **66(12)**, 2715-2725 (2011).
3. Chu, C.K., Ma, T., Shanmuganathan, K., et al. *Antimicrob. Agents Chemother.* **39(4)**, 979-981 (1995).
4. Aguesse-Germon, S., Liu, S.-H., Chevallier, M., et al. *Antimicrob. Agents Chemother.* **42(2)**, 369-376 (1998).
5. Peek, S.F., Cote, P.J., Jacob, J.R., et al. *Hepatology* **33(1)**, 254-266 (2001).

#### 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