

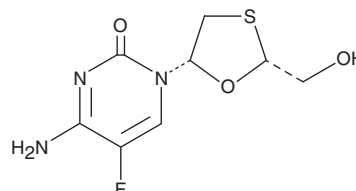
PRODUCT INFORMATION



Emtricitabine

Item No. 16879

CAS Registry No.: 143491-57-0
Formal Name: 4-amino-5-fluoro-1-[(2R,5S)-2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-2(1H)-pyrimidinone
Synonyms: BW 1592, BW 524W91, FTC
MF: C₈H₁₀FN₃O₃S
FW: 247.2
Purity: ≥98%
UV/Vis.: λ_{max}: 238, 283 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

Emtricitabine is supplied as a crystalline solid. A stock solution may be made by dissolving the emtricitabine in the solvent of choice, which should be purged with an inert gas. Emtricitabine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of emtricitabine in these solvents is approximately 30 and 20 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 emtricitabine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of emtricitabine in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Emtricitabine is a nucleoside analog and an inhibitor of HIV-1 and hepatitis B reverse transcriptase with antiviral activity.¹ It inhibits replication of HIV-1 (EC₅₀s = 10-20 nM) and hepatitis B (EC₅₀s = 10-40 nM) in various cell lines.² Emtricitabine inhibits duck hepatitis B viral DNA synthesis when administered pre- and post-viral inoculation in primary duck hepatocytes.³ *In vivo*, emtricitabine (3-30 mg/kg) reduces viremia and hepatic woodchuck hepatitis virus (WHV) replication in a dose-dependent manner in a woodchuck model of chronic WHV infection.⁴ Formulations containing emtricitabine have been used in the treatment of HIV infection.

References

1. Nelson, M. and Schiavone, M. *Int. J. Clin. Pract.* **58(5)**, 504-510 (2004).
2. Darque, A., Valette, G., Rousseau, F., *et al. Antimicrob. Agents Chemother.* **43(9)**, 2245-2250 (1999).
3. Seignères, B., Martin, P., Werle, B., *et al. Antimicrob. Agents Chemother.* **47(6)**, 1842-1852 (2003).
4. Korba, B.E., Schinazi, R.F., Cote, P., *et al. Antimicrob. Agents Chemother.* **44(6)**, 1757-1760 (2000).

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