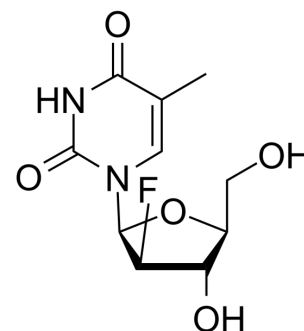


Clevudine

| | | | | | | | | | | | | | |
|---------------------------|--|----------|-------|---------|--|-----|---------|------------|-------|----------|--|-------|---------|
| Cat. No.: | HY-13859 | | | | | | | | | | | | |
| CAS No.: | 163252-36-6 | | | | | | | | | | | | |
| Molecular Formula: | C ₁₀ H ₁₃ FN ₂ O ₅ | | | | | | | | | | | | |
| Molecular Weight: | 260.22 | | | | | | | | | | | | |
| Target: | HBV; DNA/RNA Synthesis; Orthopoxvirus | | | | | | | | | | | | |
| Pathway: | Anti-infection; Cell Cycle/DNA Damage | | | | | | | | | | | | |
| Storage: | <table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table> | Powder | -20°C | 3 years | | 4°C | 2 years | In solvent | -80°C | 6 months | | -20°C | 1 month |
| Powder | -20°C | 3 years | | | | | | | | | | | |
| | 4°C | 2 years | | | | | | | | | | | |
| In solvent | -80°C | 6 months | | | | | | | | | | | |
| | -20°C | 1 month | | | | | | | | | | | |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (384.29 mM; Need ultrasonic)
 H₂O : ≥ 50 mg/mL (192.15 mM)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 3.8429 mL | 19.2145 mL | 38.4290 mL |
| | 5 mM | 0.7686 mL | 3.8429 mL | 7.6858 mL |
| | 10 mM | 0.3843 mL | 1.9215 mL | 3.8429 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (9.61 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (9.61 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (9.61 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Clevudine (L-FMAU), a nucleoside analog of the unnatural L-configuration, has potent anti-HBV activity with long half-life, low toxicity. Clevudine is a non-competitive inhibitor that is not incorporated into the viral DNA but rather binds to the polymerase. Clevudine is active against cowpox virus respiratory infection in mice^{[1][2][3]}.

In Vitro

Clevudine (L-FMAU) shows some activity against Epstein-Barr virus^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Smee DF, et al. Progress in the discovery of compounds inhibiting orthopoxviruses in animal models. *Antivir Chem Chemother.* 2008;19(3):115-24.
- [2]. Asselah T, et al. Clevudine: a promising therapy for the treatment of chronic hepatitis B. *Expert Opin Investig Drugs.* 2008;17(12):1963-1974.
- [3]. Yoo BC, et al. Clevudine is highly efficacious in hepatitis B e antigen-negative chronic hepatitis B with durable off-therapy viral suppression. *Hepatology.* 2007;46(4):1041-1048.
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Caution: Product has not been fully validated for medical applications. For research use only.

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