Dexelvucitabine

Cat. No.: HY-14920

CAS No.: 134379-77-4

Molecular Formula: $C_9H_{10}FN_3O_3$

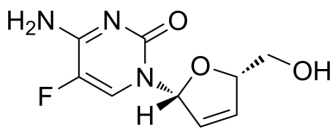
Molecular Weight: 227.19

Target: Reverse Transcriptase; HIV

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (220.08 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.4016 mL	22.0080 mL	44.0160 mL
5 mM	0.8803 mL	4.4016 mL	8.8032 mL
10 mM	0.4402 mL	2.2008 mL	4.4016 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (11.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.00 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (11.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dexelvucitabine (Reverset; d-d4FC), a Cytidine (HY-B0158) analog, is an orally active nucleoside reverse transcriptase inhibitor. Dexelvucitabine is a powerful agent against HIV-1-resistant viruses containing a thymidine analog and/or M184V mutation in the viral polymerase. Dexelvucitabine is a 2′-Deoxycytidine antiretroviral agent[1].

IC_{50} & Target

HIV-1

In Vivo

Dexelvucitabine (Reverset; d-d4FC; 33.3 mg/kg by i.v. or p.o.) has distribution and elimination half-lives ($t_{1/2\alpha}$ and $t_{1/2\beta}$,

respectively) of 0.7 and 3.6 h in monkeys, respectively. The C_{max} ranges from 21.1 to 47.5 μM[2].
Dexelvucitabine has a favorable pharmacokinetic profile with a long half-life (4.71 and 10.75 h after administration by the intravenous [i.v.] and oral [p.o.] routes, respectively) in woodchucks[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Brenda I Hernandez-Santiago, et al. Antiviral and cellular metabolism interactions between Dexelvucitabine and lamivudine. Antimicrob Agents Chemother. 2007 Jun;51(6):2130-5.

[2]. L Ma, et al. Pharmacokinetics of the antiviral agent beta-D-2',3'-didehydro-2',3'-dideoxy-5-fluorocytidine in rhesus monkeys. Antimicrob Agents Chemother. 1999 Feb;43(2):381-4.

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