Delavirdine mesylate

Cat. No.: HY-10571A

CAS No.: 147221-93-0

Molecular Formula: $C_{23}H_{32}N_6O_6S_2$

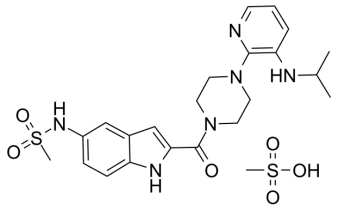
Molecular Weight: 552.67

Target: HIV; Reverse Transcriptase

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 40.3 mg/mL (72.92 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.8094 mL	9.0470 mL	18.0940 mL
5 mM	0.3619 mL	1.8094 mL	3.6188 mL
10 mM	0.1809 mL	0.9047 mL	1.8094 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 (4.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Delavirdine (U 90152) mesylate is a potent, highly specific and orally active non-nucleoside reverse transcriptase inhibitor (NNRTI). Delavirdine mesylate selectively inhibits HIV-1 reverse transcriptase (RT) (IC_{50}=0.26 μM) over DNA polymerase α (IC_{50}=440 μM) and polymerase δ (IC_{50}>550 μM). Delavirdine mesylate is an inhibitor of HIV-1 replication and can can be used for the study of AIDs[1].

IC_{50} & Target

IC50: 0.26 μM (HIV-1 RT); 440 μM (DNA polymerase α); >550 μM (DNA polymerase δ)[1]

In Vitro

Delavirdine has an 50% cytotoxicity at concentrations >100 μM in H9 and PBMC cultures.Delavirdine has low cellular

	cytotoxicity, causing less than 8% reduction in peripheral blood lymphocyte viability at 100 μM[1]. Delavirdine inhibits HIV-1 reverse transcriptase (RT) wild type with an IC_{50} value of 0.26 μM, and it inhibits Y181C-substituted RT and K103N-substituted RT with IC_{50} values of 8.32 uM and 7.7 uM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Delavirdine (U 90152) mesylate (oral gavage; 10 mg/kg, 200 mg/kg, 250 mg/kg; single dose) is absorbed and metabolized rapidly, that it constitutes a minor component in circulation, that its pharmacokinetics are nonlinear, and that its metabolism to desalkyl delavirdine is capacity limited or inhibitable in CD-1 mice (PK study)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int J Antimicrob Agents. 2019 Dec;54(6):814-819.
- Sci Rep. 2015 Oct 29;5:15806.
- Future Med Chem. 2018 Dec 17.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Dueweke TJ, et al. U-90152, a potent inhibitor of human immunodeficiency virus type 1 replication. Antimicrob Agents Chemother. 1993 May;37(5):1127-31.

[2]. Mayland Chang, et al. Metabolism of the HIV-1 Reverse Transcriptase Inhibitor Delavirdine In Mice. Research Article

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA