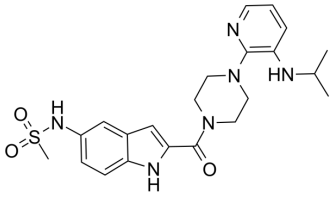
Delavirdine

Cat. No.:	HY-10571
CAS No.:	136817-59-9
Molecular Formula:	$C_{22}H_{28}N_6O_3S$
Molecular Weight:	456.56
Target:	HIV; Reverse Transcriptase
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Delavirdine (U 90152) is a potent, highly specific and orally active non-nucleoside reverse transcriptase inhibitor (NNRTI). Delavirdine 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 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) (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.

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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

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