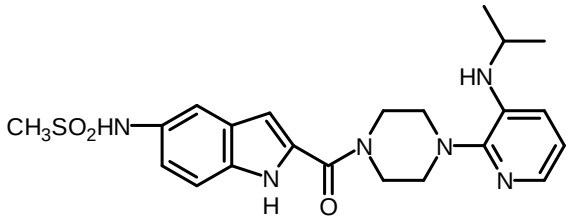
Delavirdine PK Fact Sheet

Details

Generic Name	Delavirdine
Trade Name	Rescriptor®
Class	Non-Nucleoside Reverse Transcriptase Inhibitor
Molecular Weight	552.68
Structure	

Summary of Key Pharmacokinetic Parameters

Linearity/non-linearity	Delavirdine exhibits nonlinear steady-state elimination pharmacokinetics, with apparent oral clearance decreasing by ~22-fold as the total daily dose increases from 60 to 1200 mg/day.
Plasma half life	5.8 h (range 2-11 h)
Cmax	19.4 µg/ml (1.1-55.2 µg/ml) (400 mg three times daily)
Cmin	8.30 µg/ml (0.055-24.9 µg/ml) (400 mg three times daily)
AUC	99.5 µg/ml.h (2.77-284.8 µg/ml.h) (400 mg three times daily)
Bioavailability	85% [1]
Absorption	Delavirdine may be administered with or without food. When multiple doses of delavirdine were administered with food, geometric mean Cmax was reduced by approximately 25%, but AUC and Cmin were not altered.
Protein Binding	~98%
Volume of Distribution	0.8-1.0 L/kg [1]
CSF:Plasma ratio	~0.4% of corresponding plasma concentrations
Semen:Plasma ratio	~2% of corresponding plasma concentrations
Renal Clearance	<5% as unchanged drug
Renal Impairment	Pharmacokinetics of delavirdine in patients with hepatic or renal impairment have not been investigated.
Hepatic Impairment	Pharmacokinetics of delavirdine in patients with hepatic or renal impairment have not been investigated. Delavirdine is metabolized primarily by the liver; caution should be exercised in patients with impaired hepatic function.

Metabolism and Distribution

Metabolised by	Primarily CYP3A4; *in vitro* data suggests involvement of CYP2D6
Inducer of	Unknown
Inhibitor of	CYP3A4 (*in vitro/in vivo*); CYP2C9, CYP2D6, and CYP2C19 (*in vitro*); BCRP(*in vitro*) [2]; MRP1, MRP2, MRP3 [3]
Transported by	Unknown

References

Unless otherwise stated (see below), information is from:
Rescriptor® Prescribing Information. ViiV Healthcare.

1. Smith PF, DiCenzo R, Morse GD. Clinical pharmacokinetics of non-nucleoside reverse transcriptase inhibitors. *Clin Pharmacokinet.* 2001; 40(12): 893-905.
2. Weiss J, Rose J, Storch CH, *et al.* Modulation of human BCRP (ABCG2) activity by anti-HIV drugs. *J Antimicrob Chemother.* 2007; 59(2): 238-245.
3. Weiss J, Theile D, Ketabi-Kiyanvash N, *et al.* Inhibition of MRP1/ABCC1, MRP2/ABCC2 and MRP3/ABCC3 by nucleoside, nucleotide and non-nucleoside reverse transcriptase inhibitors. *Drug Metab Dispos.* 2007; 35(3): 340-344.