Delavirdine (mesylate)
Item No. 24026

CAS Registry No.: 147221-93-0
Formal Name: N-[2-[[4-[[3-[[1-methylethyl]amino]-2-pyridinyl]-1-piperazinyl]carbonyl]-1H-indol-5-yl]-methanesulfonamide, monomethanesulfonate
MF: C_{22}H_{28}N_{6}O_{3}S • CH_{3}SO_{3}H
FW: 552.7
Purity: ≥98%
UV/Vis.: \lambda_{\text{max}}: 224, 303 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Delavirdine (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the delavirdine (mesylate) in the solvent of choice. Delavirdine (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of delavirdine (mesylate) in these solvents is approximately 10, 20, and 14 mg/ml, respectively.

Delavirdine (mesylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, delavirdine (mesylate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Delavirdine (mesylate) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Delavirdine is a non-nucleoside reverse transcriptase inhibitor (NNRTI) that selectively inhibits HIV-1 reverse transcriptase over DNA polymerase α and δ in vitro (IC_{50}s = 0.26, 440, and >550 μM, respectively).\(^1\) It inhibits growth of clinical isolates of HIV-1 (ED_{50} = <0.005-0.69 μM). Delavirdine blocks replication of 25 primary HIV-1 isolates, including strains resistant to 3’-azido-2’,3’-deoxythymidine (AZT) or 2’;3’-dideoxyinosine, with a mean ED_{50} value of 0.066 μM. Delavirdine also inhibits growth of L. infantum promastigotes (IC_{50} = 26.1 μM).\(^2\) Formulations containing delavirdine have been used in the treatment of HIV.

References