

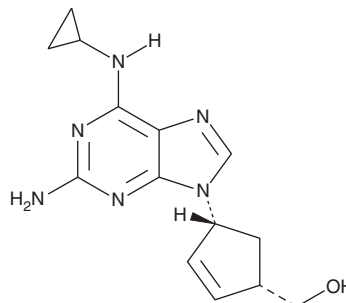
PRODUCT INFORMATION



Abacavir

Item No. 36925

CAS Registry No.: 136470-78-5
Formal Name: (1S,4R)-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol
Synonym: 1592U89
MF: C₁₄H₁₈N₆O
FW: 286.3
Purity: ≥98%
UV/Vis.: λ_{max}: 202, 260, 287 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

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

Description

Abacavir is a nucleoside analog and an inhibitor of HIV-1 reverse transcriptase ($K_i = 2.1 \mu\text{M}$ for the wild-type enzyme).¹ It inhibits replication of a variety of HIV-1 and HIV-2 strains, including strains resistant to 3'-azido-3'-deoxythymidine (zidovudine; Item No. 15492) or 2',3'-dideoxyinosine (didanosine; Item No. 23715), in HeLa cells stably expressing CD4 ($\text{IC}_{50}\text{s} = 5.8\text{--}21 \mu\text{M}$). Abacavir inhibits replication of eight HIV-1 clinical isolates in phytohemagglutinin-stimulated isolated human peripheral blood lymphocytes with a mean IC_{50} value of $0.26 \mu\text{M}$. It inhibits hepatitis B virus (HBV) DNA synthesis in HepG2 cells ($\text{IC}_{50} = 7 \mu\text{M}$) and is also active against human cytomegalovirus (CMV) strain AD169 and the Petaluma strain of feline immunodeficiency virus (FIV) in plaque reduction assays ($\text{IC}_{50}\text{s} = 32$ and $0.4 \mu\text{M}$, respectively). Formulations containing abacavir have been used in the treatment of HIV infection.

Reference

1. Daluge, S.M., Good, S.S., Faletto, M.B., *et al.* 1592U89, a novel carbocyclic nucleoside analog with potent, selective anti-human immunodeficiency virus activity. *Antimicrob. Agents Chemother.* **41**(5), 1082-1093 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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