

## Product Data Sheet

Product Name: Abacavir-d4

Cat. No.: GC46767

### Chemical Properties

Cas. No. 1260619-56-4

SMILES NC1=NC(N([C@@]2([H])C=C[C@@H](CO)C2)C=N3)=C3C(NC4C([2H])([2H])C4([2H])([2H])=N1

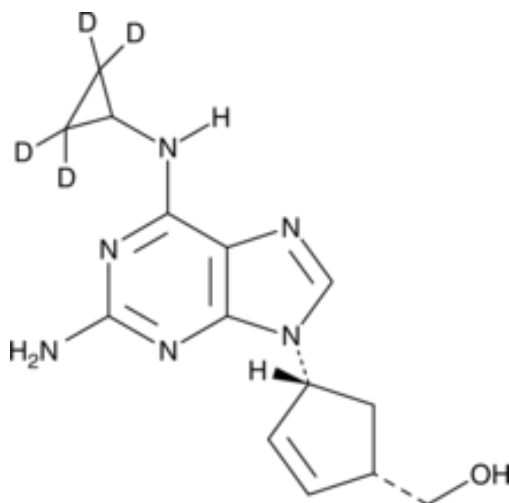
Formula C<sub>14</sub>H<sub>14</sub>D<sub>4</sub>N<sub>6</sub>O M.Wt 290.4

Solubility Acetonitrile:Methanol (1:1): Storage Store at -20°C  
soluble,DMSO: soluble

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



### Background

Abacavir-d<sub>4</sub> is intended for use as an internal standard for the quantification of abacavir by GC- or LC-MS. 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).<sup>1</sup> It inhibits replication of a variety of HIV-1 and HIV-2 strains, including strains resistant to 3'-azido-3'-deoxythymidine or 2',3'-dideoxyinosine , in HeLa cells stably

**Caution: Product has not been fully validated for medical applications. For research use only.**

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expressing CD4 ( $IC_{50}$ s = 5.8-21  $\mu$ 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  $\mu$ M. It inhibits hepatitis B virus (HBV) DNA synthesis in HepG2 cells ( $IC_{50}$  = 7  $\mu$ M) and is also active against human cytomegalovirus (CMV) strain AD169 and the Petaluma strain of feline immunodeficiency virus (FIV) in plaque reduction assays ( $IC_{50}$ s = 32 and 0.4  $\mu$ M, respectively). Formulations containing abacavir have been used in the treatment of HIV infection.

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)

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