

PRODUCT INFORMATION



Atazanavir-d₆ Item No. 26456

CAS Registry No.: 1092540-50-5
Formal Name: (3S,8S,9S,12S)-3,12-bis(1,1-dimethylethyl)-8-hydroxy-4,11-dioxo-9-(phenylmethyl)-6-[[4-(2-pyridinyl)phenyl]methyl]-2,5,6,10,13-pentaazatetradecanedioic acid, 1,14-di(methyl-d₃) ester

MF: C₃₈H₄₆D₆N₆O₇

FW: 710.9

Chemical Purity: ≥98% (Atazanavir)

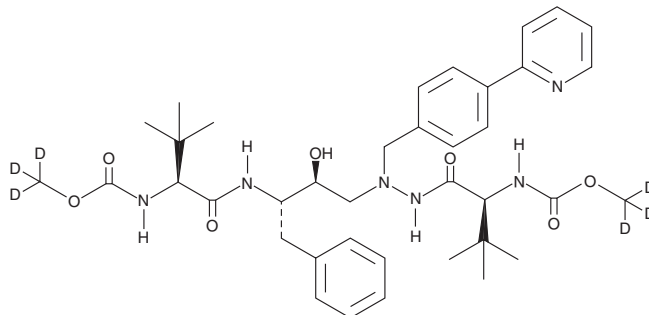
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₆); ≤1% d₀

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

Atazanavir-d₆ is intended for use as an internal standard for the quantification of atazanavir (Item No. 11733) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Atazanavir-d₆ is supplied as a solid. A stock solution may be made by dissolving the atazanavir-d₆ in the solvent of choice, which should be purged with an inert gas. Atazanavir-d₆ is slightly soluble in organic solvents such as ethanol and methanol.

Description

Atazanavir is an azapeptide inhibitor of HIV-1 protease ($K_i = 2.66$ nM).¹ It has antiviral activity against a variety of HIV-1 strains in several cell types with EC₅₀ values ranging from 2.62 to 5.28 nM. Atazanavir exhibits a minor synergistic effect when used in combination with the reverse transcriptase inhibitor zidovudine (Item No. 15492) in HIV-1-infected human peripheral blood mononuclear cells (PBMCs) and an additive effect when used in combination with several additional reverse transcriptase or HIV-1 protease inhibitors. Atazanavir also inhibits UDP-glucuronyltransferase 1A1 (UGT1A1), which is involved in bilirubin clearance.² Formulations containing atazanavir have been used in combination therapy for the treatment of HIV-1 infection.

References

1. Robinson, B.S., Riccardi, K.A., Gong, Y.F., *et al.* BMS-232632, a highly potent human immunodeficiency virus protease inhibitor that can be used in combination with other available antiretroviral agents. *Antimicrob. Agents Chemother.* **44**(8), 2093-2099 (2000).
2. Michaud, V., Bar-Magen, T., Turgeon, J., *et al.* The dual role of pharmacogenetics in HIV treatment: Mutations and polymorphisms regulating antiretroviral drug resistance and disposition. *Pharmacol. Rev.* **64**(3), 803-833 (2012).

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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