

Product Data Sheet

Product Name: L-Hyoscyamine-d3

Cat. No.: GC65504

Chemical Properties

Cas. No. 101-31-5

Formula C₁₇H₂₀D₃NO₃ M.Wt 292.39

Solubility DMSO : 100 mg/mL (342.01 mM; Storage Store at -20°C
Need ultrasonic)

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.

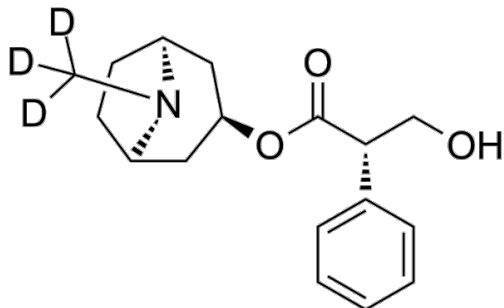
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Structure



Background

L-Hyoscyamine-d3 (Daturine-d3) is the deuterium labeled L-Hyoscyamine. L-Hyoscyamine (Daturine), a natural plant tropane alkaloid, is a potent and competitive muscarinic receptor (MR) antagonist. L-Hyoscyamine is a levo-isomer to Atropine [1][2].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216. [2]. Lars Göran Axelsson, et al. Regulatory role of 5-HT and muscarinic receptor antagonists on the migrating myoelectric complex in rats. Eur J Pharmacol. 2003

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Apr 25;467(1-3):211-8. [3]. Harald John, et al. Application of an enantioselective LC-ESI MS/MS procedure to determine R- and S-hyoscyamine following intravenous atropine administration in swine. Drug Test Anal. Mar-Apr 2012;4(3-4):194-8.

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