

PRODUCT INFORMATION



(-)-Hyoscyamine-d₃

Item No. 26760

Formal Name: (1R,3R,5S)-8-(methyl-d₃)-8-azabicyclo[3.2.1]octan-3-yl (S)-3-hydroxy-2-phenylpropanoate

Synonyms: L-Hyoscyamine-d₃, (S)-Hyoscyamine-d₃

MF: C₁₇H₂₀D₃NO₃

FW: 292.4

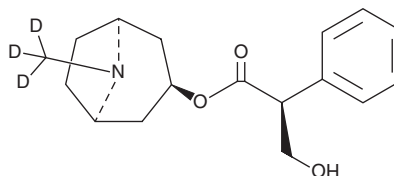
Chemical Purity: ≥95% ((-)-Hyoscyamine)

Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

(-)-Hyoscyamine-d₃ is intended for use as an internal standard for the quantification of (-)-hyoscyamine 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).

(-)-Hyoscyamine-d₃ is supplied as a solid. (-)-Hyoscyamine-d₃ is soluble in the organic solvent chloroform, which should be purged with an inert gas, at a concentration of approximately 50 mg/ml. (-)-Hyoscyamine-d₃ is also soluble in ethanol and methanol.

Description

(-)-Hyoscyamine is a tropane alkaloid, a muscarinic receptor antagonist, and an isomer of atropine (Item No. 12008).^{1,2} (-)-Hyoscyamine inhibits the arterial depressor response induced by the muscarinic agonist methacholine in dogs.¹ It is more effective than atropine at inhibiting EEG arousal in dogs following sciatic nerve stimulation when administered at doses of 0.5 and 1 mg/kg. (-)-Hyoscyamine induces convulsions in and is toxic to mice (LD₅₀ = 95 mg/kg).²

References

1. Domino, E.F. and Hudson, R.D. Observations on the pharmacological actions of the isomers of atropine. *J. Pharmacol. Exp. Ther.* **127**(4), 305-312 (1959).
2. European Food Safety Authority. Scientific Opinion on Tropane alkaloids in food and feed EFSA Panel on contaminants in the food chain (CONTAM). *EFSA J.* **11**(10), 3386 (2013).

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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