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Produktinformation

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siehe unsere Liefer- und Versandbedingungen

Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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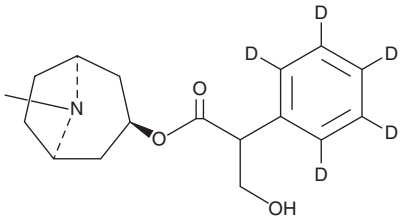
PRODUCT INFORMATION

Atropine-d_5

Item No. 30734

Formal Name:	(1R,3r,5S)-8-methyl-8-azabicyclo[3.2.1]octan-3-yl 3-hydroxy-2-(phenyl-d_5)propanoate
Synonyms:	DL-Hyoscyamine-d_5, Tropine tropate-d_5
MF:	$C_{17}H_{18}D_5NO_3$
FW:	294.4
Chemical Purity:	≥95% (Atropine)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_5); ≤1% d_0
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Synthetic



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

Laboratory Procedures

Atropine-d_5 is intended for use as an internal standard for the quantification of atropine (Item No. 12008) 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).

Atropine-d_5 is supplied as a solid. A stock solution may be made by dissolving the atropine-d_5 in the solvent of choice, which should be purged with an inert gas. Atropine-d_5 is slightly soluble in chloroform, ethanol, and methanol.

Description

Atropine is a tropane alkaloid that has been found in *A. belladonna* and acts as a non-selective, competitive antagonist of muscarinic acetylcholine receptors (K_Bs = 0.16-1.26 nM for the M_1-M_5 receptors).[1,2] Atropine increases firing of the sinoatrial node and conduction through the atrioventricular node of the heart, opposes the actions of the vagus nerve, blocks acetylcholine receptor sites, and decreases bronchial secretions.[3] Formulations containing atropine have been used to induce mydriasis for ophthalmological exams and in the treatment of cardiac arrest and organophosphate pesticide or muscarinic mushroom poisoning.

References

1. Sharp, J.M. and Doran, P.M. Characteristics of growth and tropane alkaloid synthesis in *Atropa belladonna* roots transformed by *Agrobacterium rhizogenes*. *J. Biotechnol.* **16(3-4)**, 171-185 (1990).
2. Caulfield, M.P. and Birdsall, N.J.M. International Union of Pharmacology. XVII. Classification of muscarinic acetylcholine receptors. *Pharmacol. Rev.* **50(2)**, 279-290 (1998).
3. Broadley, K.J. and Kelly, D.R. Muscarinic receptor agonists and antagonists. *Molecules* **6(3)**, 142-193 (2001).

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