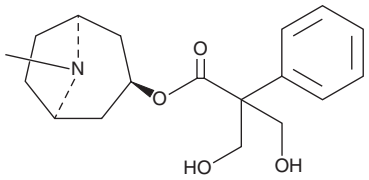
PRODUCT INFORMATION

α-Hydroxymethyl Atropine

Item No. 24266

CAS Registry No.:	2515-36-8
Formal Name:	2-(hydroxymethyl)-2-phenylhydracylate (ester), 1αH,5αH-tropan-3α-ol
MF:	$C_{18}H_{25}NO_4$
FW:	319.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 206 nm
Supplied as:	A crystalline 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

α-Hydroxymethyl atropine is supplied as a crystalline solid. A stock solution may be made by dissolving the α-hydroxymethyl atropine in the solvent of choice, which should be purged with an inert gas. α-Hydroxymethyl atropine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of α-hydroxymethyl atropine in these solvents is approximately 16, 10, and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of α-hydroxymethyl atropine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of α-hydroxymethyl atropine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

α-Hydroxymethyl atropine is a byproduct in the synthesis of atropine.[1] It reduces acetylcholine-induced contractile activity of isolated rat intestine when used at a concentration of 0.025 ng/ml.[2]

References

1. Dai, C., Snead, D.R., Zhang, P., *et al.* Continuous-flow synthesis and purification of atropine with sequential in-line separations of structurally similar impurities. *J. Flow Chem.* **5(3)**, 133-138 (2015).
2. Scarselli, V., Cignarella, G., and Maffii, G. Structural changes and anticholinergic activity in a class of trophic and α-methyltrophic acid derivatives. *J. Med. Chem.* **7**, 237-238 (1964).

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