

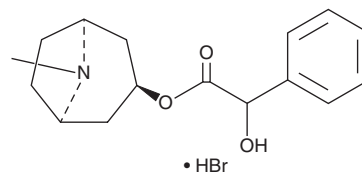
# PRODUCT INFORMATION



## Homatropine (hydrobromide)

Item No. 30359

**CAS Registry No.:** 51-56-9  
**Formal Name:**  $\alpha$ -hydroxy-benzeneacetic acid (3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester, monohydrobromide  
**Synonym:** ( $\pm$ )-Homatropine  
**MF:**  $C_{16}H_{21}NO_3 \cdot HBr$   
**FW:** 356.3  
**Purity:**  $\geq 98\%$   
**Supplied as:** A crystalline solid  
**Storage:**  $-20^{\circ}C$   
**Stability:**  $\geq 2$  years



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

### Laboratory Procedures

Homatropine (hydrobromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the homatropine (hydrobromide) in the solvent of choice, which should be purged with an inert gas. Homatropine (hydrobromide) is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

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 homatropine (hydrobromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of homatropine (hydrobromide) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Homatropine is an anticholinergic agent.<sup>1,2</sup> It reduces acetylcholine-induced contractions of isolated goat detrusor muscle strips when used at a concentration of 5  $\mu M$ .<sup>1</sup> Homatropine (1  $\mu M$ ) inhibits acetylcholine- or methacholine-induced contraction of isolated rat anococcygeus muscle.<sup>2</sup> It inhibits serotonin- or thrombin-induced platelet aggregation in isolated sheep platelet-rich plasma ( $IC_{50}$ s = 4.3 and 100  $\mu M$ , respectively).<sup>3</sup> Topical ophthalmic administration of homatropine induces partial mydriasis in Angora goats.<sup>4</sup>

### References

1. George, N., Shiny, P.J., Miriam, J., *et al.* Inhibitory effect of anticholinergics on the contraction of isolated caprine urinary bladder detrusor muscle. *Auton. Autacoid Pharmacol.* **30(3)**, 173-177 (2010).
2. Doggrell, S.A. Effect of antimuscarinic agents on the contractile responses to cholinomimetics in the rat anococcygeus muscle. *Br. J. Pharmac.* **73(4)**, 829-835 (1981).
3. Michal, F. and Penglis, F. Inhibition of serotonin-induced platelet aggregation in relation to thrombus production. *J. Pharm. Exp. Ther.* **166(2)**, 276-284 (1969).
4. Whelan, N.C., Castillo-Alcala, F., and Lizarraga, I. Efficacy of tropicamide, homatropine, cyclopentolate, atropine and hyoscine as mydriatics in Angora goats. *N.Z. Vet. J.* **59(6)**, 328-331 (2011).

#### 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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