

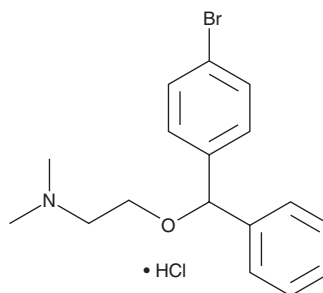
# PRODUCT INFORMATION



## Bromodiphenhydramine (hydrochloride)

Item No. 29636

**CAS Registry No.:** 1808-12-4  
**Formal Name:** 2-[(4-bromophenyl)phenylmethoxy]-N,N-dimethylethanamine, monohydrochloride  
**Synonyms:** Bromazine, NSC 36113  
**MF:** C<sub>17</sub>H<sub>20</sub>BrNO • HCl  
**FW:** 370.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 229 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

Bromodiphenhydramine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the bromodiphenhydramine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Bromodiphenhydramine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of bromodiphenhydramine (hydrochloride) in ethanol is approximately 30 mg/ml and approximately 10 mg/ml in DMSO and DMF.

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

### Description

Bromodiphenhydramine is a histamine H<sub>1</sub> receptor antagonist.<sup>1</sup> It induces histamine release in isolated guinea pig lung when used at a concentration of 1 mM but completely prevents ovalbumin-induced histamine release in lungs isolated from ovalbumin-sensitized guinea pigs when used at concentrations of 100 and 200 µg/ml.<sup>2</sup> Bromodiphenhydramine (17 mg/kg) inhibits formalin-induced paw edema in rats.<sup>1</sup> It increases survival in a mouse model of systemic *S. typhimurium* infection when administered at doses of 1.5 and 3 mg/kg.<sup>3</sup>

### References

1. Ahmadi, A., Khalili, M., Nafarie, A., *et al.* Synthesis and anti-inflammatory effects of new piperazine and ethanolamine derivatives of H<sub>1</sub>-antihistaminic drugs. *Mini Rev. Med. Chem.* **12**(12), 1282-1292 (2012).
2. Mota, I. and Da Silva, W.D. The anti-anaphylactic and histamine-releasing properties of the antihistamines. Their effect on the mast cells. *Br. J. Pharmacol. Chemother.* **15**(3), 396-404 (1960).
3. Dastidar, S.G., Saha, P.K., Sanyamat, B., *et al.* Antibacterial activity of ambodryl and benadryl. *J. Appl. Bacteriol.* **41**(2), 209-214 (1976).

#### 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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