

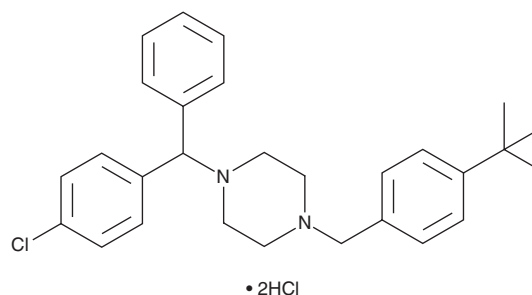
# PRODUCT INFORMATION



## Bucizine (hydrochloride)

Item No. 25641

**CAS Registry No.:** 129-74-8  
**Formal Name:** 1-[(4-chlorophenyl)phenylmethyl]-4-[[4-(1,1-dimethylethyl)phenyl]methyl]-piperazine, dihydrochloride  
**Synonym:** NSC 25141  
**MF:** C<sub>28</sub>H<sub>33</sub>ClN<sub>2</sub> • 2HCl  
**FW:** 506.0  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 224, 279 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

Bucizine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the buclizine (hydrochloride) in the solvent of choice. Bucizine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of buclizine (hydrochloride) in these solvents is approximately 0.11, 0.17, and 5 mg/ml, respectively.

### Description

Bucizine is an antihistamine.<sup>1</sup> It reduces bronchoconstriction and lethality induced by aerosolized histamine in guinea pigs when administered at a dose of 1 mg/kg. Bucizine (40-200 mg/kg) induces gross malformations, including fusion of the tongue to the palate, cleft palate, micrognathia, and micromelia, and bone malformations in rats.<sup>2</sup> It also inhibits cancer cell growth by binding to translationally controlled tumor protein (TCTP) and inducing cell differentiation.<sup>3</sup> Formulations containing buclizine have been used to treat nausea induced by pregnancy and motion sickness.

### References

- Schiller, I.W. and Lowell, F.C. Toxicologic and clinical appraisal of buclizine, a new antihistaminic compound. *J. Allergy* **27(1)**, 63-67 (1956).
- King, C.T. and Howell, J. Teratogenic effect of buclizine and hydroxyzine in the rat and chlorcyclizine in the mouse. *Am. J. Obstet. Gynecol.* **95(1)**, 109-111 (1966).
- Seo, F.J., Fischer, N., and Efferth, T. Role of TCTP for cellular differentiation and cancer therapy. *Results Probl. Cell Differ.* **64**, 263-281 (2017).

#### 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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