



LKT Laboratories, Inc.

## Diphenhydramine Hydrochloride

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### Product Information

**Product ID** D3462

**CAS No.** 147-24-0

**Chemical Name** 2-Diphenylmethoxy-N,N-dimethylethanamine hydrochloride

**Synonym** Alledryl, Amidryl, Benadryl, Dihydral, Dolestan, Halbmond, Noctomin, Syntedril

**Formula** C<sub>17</sub>H<sub>21</sub>NO • HCl

**Formula Wt.** 291.82

**Melting Point** 166-170 °C

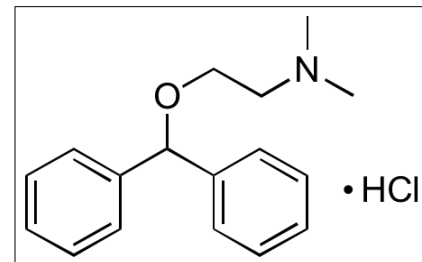
**Purity** ≥98%

**Solubility** Soluble in acetone (20 mg/mL), water (1 g/mL), and alcohol (500 mg/mL). Slightly soluble in benzene or ether.

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Diphenhydramine is a first generation antihistamine that exhibits anti-tussive, antiemetic, sedative, anti-allergic, and anticholinergic activities. Diphenhydramine inhibits muscarinic acetylcholine receptors (mAChRs) and Na<sup>+</sup> channels and acts as an inverse agonist at histamine H1 receptors. In vivo, diphenhydramine decreases leukocyte infiltration into injury sites.



**Bulk quantities available upon request**

Product ID	Size
D3462	10 g
D3462	25 g
D3462	100 g

**References** Raphael GD, Angello JT, Wu MM, et al. Efficacy of diphenhydramine vs desloratadine and placebo in patients with moderate-to-severe seasonal allergic rhinitis. *Ann Allergy Asthma Immunol.* 2006 Apr;96(4):606-14. PMID: 16680933.

Yamashiro K, Kiryu J, Tsujikawa A, et al. Suppressive effects of histamine H1 receptor antagonist diphenhydramine on the leukocyte infiltration during endotoxin-induced uveitis. *Exp Eye Res.* 2001 Jul;73(1):69-80. PMID: 11428864.

Kim YS, Shin YK, Lee C, et al. Block of sodium currents in rat dorsal root ganglion neurons by diphenhydramine. *Brain Res.* 2000 Oct 27;881(2):190-8. PMID: 11036158.

Reiner PB, Kamondi A. Mechanisms of antihistamine-induced sedation in the human brain: H1 receptor activation reduces a background leakage potassium current. *Neuroscience.* 1994 Apr;59(3):579-88. PMID: 8008209.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.