



# SZABO SCANDIC

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## Produktinformation



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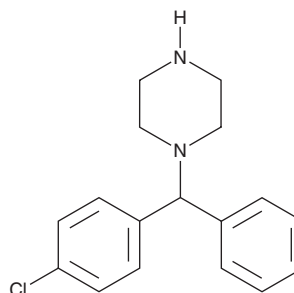
# PRODUCT INFORMATION



## 1-(4-Chlorobenzhydryl)piperazine

Item No. 34518

**CAS Registry No.:** 303-26-4  
**Formal Name:** 1-[(4-chlorophenyl)phenylmethyl]-piperazine  
**Synonyms:** N-(p-Chlorobenzhydryl)-piperazine, Norchlorcyclizine, NSC 86164  
**MF:** C<sub>17</sub>H<sub>19</sub>ClN<sub>2</sub>  
**FW:** 286.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 231 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

1-(4-Chlorobenzhydryl)piperazine is supplied as a solid. A stock solution may be made by dissolving the 1-(4-chlorobenzhydryl)piperazine in the solvent of choice, which should be purged with an inert gas. 1-(4-Chlorobenzhydryl)piperazine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 1-(4-chlorobenzhydryl)piperazine in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

1-(4-Chlorobenzhydryl)piperazine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1-(4-chlorobenzhydryl)piperazine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 1-(4-Chlorobenzhydryl)piperazine has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

1-(4-Chlorobenzhydryl)piperazine is an inactive metabolite of meclizine (Item No. 14615) and chlorcyclizine (Item No. 19239).<sup>1,2</sup> It has also been found as an impurity in commercial preparations of hydroxyzine (Item No. 24039) and cetirizine (Item No. 19686).<sup>3,4</sup> 1-(4-Chlorobenzhydryl)piperazine has been used in the synthesis of voltage-gated sodium channel 1.7 (Na<sub>v</sub>1.7) inhibitors, anticancer agents, and antihistamines.<sup>5-7</sup>

### References

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2. Kuntzman, R., Klutch, A., Tsai, I., et al. *J. Pharmacol. Exp. Ther.* **149**(1), 29-35 (1965).
3. Simpson, D., Skellern, G.G., and Miller, J.H. *J. Pharm. Biomed. Anal.* **14**(8-10), 1371-1375 (1996).
4. Javid, F.S., Shafaat, A., and Zarghi, A. *J. Anal. Chem.* **69**(5), 442-447 (2014).
5. Back, S.K., Kam, Y.L., Oh, J.A., et al. *Bull. Korean Chem. Soc.* **36**(9), 2290-2297 (2015).
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#### 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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