



# SZABO SCANDIC

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## Produktinformation



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### SZABO-SCANDIC HandelsgmbH

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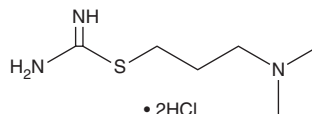
# PRODUCT INFORMATION



## Dimaprit (hydrochloride)

Item No. 29418

**CAS Registry No.:** 23256-33-9  
**Formal Name:** carbamimidothioic acid,  
3-(dimethylamino)propyl ester,  
dihydrochloride  
**MF:** C<sub>6</sub>H<sub>15</sub>N<sub>3</sub>S • 2HCl  
**FW:** 234.2  
**Purity:** ≥95%  
**Supplied as:** A crystalline 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

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

Dimaprit (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dimaprit (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Dimaprit (hydrochloride) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Dimaprit is a histamine H<sub>2</sub> receptor agonist with a K<sub>i</sub> value of 44 μM in guinea pig right atrium.<sup>1,2</sup> It is selective for histamine H<sub>2</sub> over H<sub>1</sub> and H<sub>3</sub> receptors with relative potencies of 71, <0.0001, and <0.008, respectively, compared to histamine. Dimaprit (6 μM) inhibits histamine release from isolated peritoneal mast cells in a rat model of anaphylaxis induced by *A. suum* extract, which is not affected by pretreatment with mepyramine (Item No. 20978), an H<sub>1</sub> receptor inverse agonist, or cimetidine (Item No. 18743), an H<sub>2</sub> receptor antagonist.<sup>3</sup> It stimulates gastric acid secretion *in vivo* in anaesthetized rats and cats with relative potencies of 19.5 and approximately 400 to 500, respectively, compared to histamine.<sup>4</sup> Dimaprit inhibits 2-(2-pyridyl)ethylamine-induced bronchoconstriction in guinea pigs in a dose-dependent manner.<sup>5</sup>

### References

1. Hill, S.J. Distribution, properties, and functional characteristics of three classes of histamine receptor. *Pharmacol. Rev.* **42(1)**, 45-83 (1990).
2. Rising, T.J. and Steward, A. The determination of receptor constants for histamine H<sub>2</sub>-agonists in the guinea-pig isolated right atrium using an irreversible H<sub>2</sub>-antagonist. *Br. J. Pharmacol.* **87(1)**, 211-216 (1986).
3. Kohno, S., Ogawa, K., Nabe, T., *et al.* Dimaprit, a histamine H<sub>2</sub>-agonist, inhibits anaphylactic histamine release from mast cells and the decreased release is restored by thioperamide (H<sub>3</sub>-antagonist), but not by cimetidine (H<sub>2</sub>-antagonist). *Jpn. J. Pharmacol.* **62(1)**, 75-79 (1993).
4. Parsons, M.E., Owen, D.A.A., Ganellin, C.R., *et al.* Dimaprit-[S-[3-(N,N-dimethylamino)propyl]isothioure] – A highly specific histamine H<sub>2</sub>-receptor agonist. Part 1. Pharmacology. *Agents Actions* **7(1)**, 31-37 (1977).
5. Drazen, J.M., Schneider, M.W., and Venugopalan, C.S. Bronchodilator activity of dimaprit in the guinea pig *in vitro* and *in vivo*. *Eur. J. Pharmacol.* **55(3)**, 233-239 (1979).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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