

Certificate of Analysis

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Product Name: Dimaprit dihydrochloride

Catalog No.: 0506

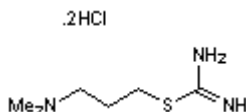
Batch No.: 2

CAS Number: 23256-33-9

IUPAC Name: S-(3-Dimethylaminopropyl)isothiourea dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₁₅N₃S.2HCl
Batch Molecular Weight: 234.19
Physical Appearance: White solid
Solubility: water to 100 mM
 phosphate buffered saline to 100 mM with gentle warming
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 161 - 164°C
HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	30.77	7.32	17.94	30.28
Found	30.62	7.53	17.67	30

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Information

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Product Name: Dimaprit dihydrochloride

Catalog No.: 0506

Batch No.: 2

CAS Number: 23256-33-9

IUPAC Name: S-(3-Dimethylaminopropyl)isothiurea dihydrochloride

Description:

Selective H₂ agonist with central effects upon systemic administration. Also inhibits nNOS (IC₅₀ = 49 µM).

Physical and Chemical Properties:

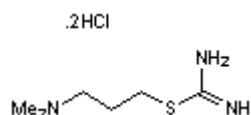
Batch Molecular Formula: C₆H₁₅N₃S.2HCl

Batch Molecular Weight: 234.19

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

phosphate buffered saline to 100 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Durant et al (1977) Dimaprit-(S-[3-(N,N-dimethylamino)propyl]isothiurea) a highly specific histamine H₂-receptor agonist. Part 2. Structure activity considerations. *Agents Actions* **7** 39. PMID: 860674.

Parsons et al (1977) Dimaprit-(S-[3-(N,N-dimethylamino)propyl]isothiurea)-a highly specific histamine H₂-receptor agonist. Part 1. Pharmacology. *Agents Actions* **7** 31. PMID: 871093.

Paquay et al (1999) Nitric oxide synthase inhibition by dimaprit and dimaprit analogues. *Br.J.Pharmacol.* **127** 331. PMID: 10385230.

Farzin and Attarzadeh (2000) Influence of different histamine receptor agonists and antagonists on apomorphine-induced licking behavior in rats. *Eur.J.Pharmacol.* **404** 169. PMID: 10980276.

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