

Certificate of Analysis

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Product Name: Thioridazine hydrochloride

Catalog No.: 3070

Batch No.: 3

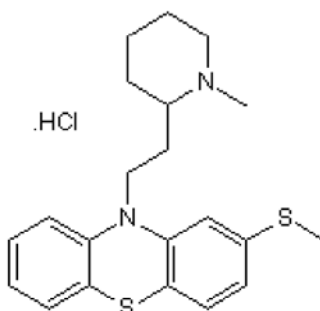
CAS Number: 130-61-0

EC Number: 204-992-8

IUPAC Name: 10-[2-(1-Methyl-2-piperidinyl)ethyl]-2-(methylthio)-10H-phenothiazine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₆N₂S₂·HCl
Batch Molecular Weight: 407.04
Physical Appearance: White solid
Solubility: water to 75 mM
DMSO to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.97	6.69	6.88
Found	61.79	6.73	6.91

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

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IUPAC Name: 10-[2-(1-Methyl-2-piperidinyl)ethyl]-2-(methylthio)-10H-phenothiazine hydrochloride

Description:

Dopamine receptor antagonist that displays antipsychotic activity. Exhibits anticancer activity in cervical, endometrial and breast cancer cells; triggers apoptosis by targeting the PI 3-K/Akt/mTOR/p70 S6K pathway. Induces G₁ cell cycle arrest. Selective inducer of cancer stem cell (CSC) differentiation.

Physical and Chemical Properties:

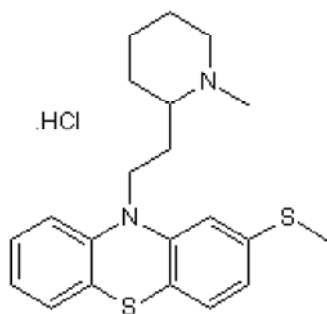
Batch Molecular Formula: C₂₁H₂₆N₂S₂.HCl

Batch Molecular Weight: 407.04

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Kang *et al* (2012) Thioridazine induces apoptosis by targeting the PI3K/Akt/mTOR pathway in cervical and endometrial cancer cells. *Apoptosis*. **Mar 30** Epub ahead of print. PMID: 22460505.

Sachlos *et al* (2012) Identification of drugs including a DA receptor antagonist that selectively target cancer stem cells. *Cell*. **May 23**. Epub ahead of print. PMID: 22632761.

Merck Index **13** 9435.

Storage: Desiccate at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 75 mM

DMSO to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival

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.

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