

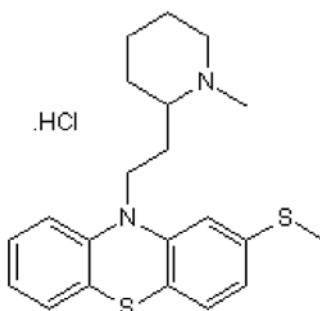
## Certificate of Analysis

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<b>Product Name:</b> Thioridazine hydrochloride	<b>Catalog No.:</b> 3070	<b>Batch No.:</b> 2
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:** C<sub>21</sub>H<sub>26</sub>N<sub>2</sub>S<sub>2</sub>·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 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.97	6.69	6.88
Found	61.62	6.71	6.82

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

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**Product Name:** Thioridazine hydrochloride

**Catalog No.:** 3070

**Batch No.:** 2

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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 G<sub>1</sub> cell cycle arrest. Selective inducer of cancer stem cell (CSC) differentiation.

**Physical and Chemical Properties:**

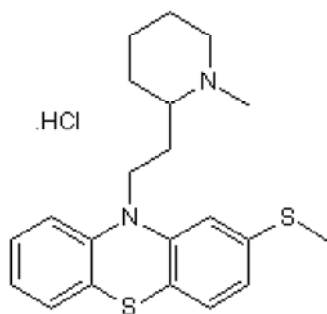
Batch Molecular Formula: C<sub>21</sub>H<sub>26</sub>N<sub>2</sub>S<sub>2</sub>.HCl

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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