

**Product Name:** MI 2 dihydrochloride

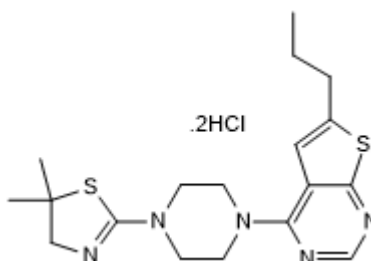
**Catalog No.:** 4707

**Batch No.:** 1

**IUPAC Name:** 4-[4-(4,5-Dihydro-5,5-dimethyl-2-thiazolyl)-1-piperazinyl]-6-propylthieno[2,3-d]pyrimidine dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>18</sub>H<sub>25</sub>N<sub>5</sub>S<sub>2</sub>·2HCl·1½H<sub>2</sub>O  
**Batch Molecular Weight:** 475.5  
**Physical Appearance:** White solid  
**Solubility:** water to 50 mM  
DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.45 (Dichloromethane:Methanol [19:1])  
**HPLC:** Shows 99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	45.47	6.36	14.73
Found	45.73	6.42	14.62

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**Description:**

Menin-MLL interaction inhibitor; binds menin (IC<sub>50</sub> = 446 nM). Selectively inhibits proliferation and induces apoptosis of leukemia cells harboring MLL fusion proteins. Also blocks transformation and induces hematopoietic differentiation of MLL-AF9 transformed bone marrow cells.

**Physical and Chemical Properties:**

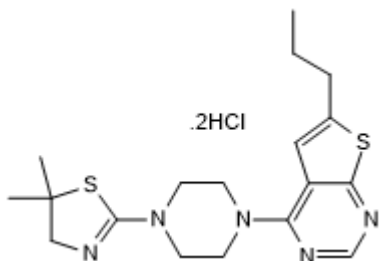
Batch Molecular Formula: C<sub>18</sub>H<sub>25</sub>N<sub>5</sub>S<sub>2</sub>.2HCl.1½H<sub>2</sub>O

Batch Molecular Weight: 475.5

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.

**Solubility & Usage Info:**

water to 50 mM  
DMSO to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. It has been packed under inert atmosphere, and should be kept under inert atmosphere during and after weighing.

**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:**

**Grembecka et al** (2012) Menin-MLL inhibitors reverse oncogenic activity of MLL fusion proteins in leukemia. *Nat.Chem.Biol.* **8** 277. PMID: 22286128.

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