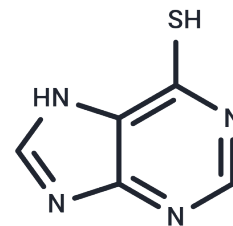


## 6-Mercaptopurine

## Chemical Properties

CAS No. :	50-44-2
Formula:	C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> S
Molecular Weight:	152.18
Storage:	Store under nitrogen Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	6-Mercaptopurine (6-MP) is an antimetabolite antineoplastic agent with immunosuppressant properties. It interferes with nucleic acid synthesis by inhibiting purine metabolism and is used, usually in combination with other drugs, in the treatment of or in remission maintenance programs for leukemia.
Targets(IC50)	Nucleoside Antimetabolite/Analog, Endogenous Metabolite, Autophagy, Dehydrogenase
In vivo	Phosphoribosyl pyrophosphate amidotransferase acts as the rate-limiting enzyme in purine biosynthesis, affecting the synthesis and function of RNA and DNA. Mercaptopurine inhibits this enzyme, thereby hindering purine nucleoside and its metabolism, which interferes with nucleotide interconversion and glycoprotein synthesis.

## Solubility Information

Solubility	DMSO: 41.67 mg/mL (273.82 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H <sub>2</sub> O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (6.57 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	6.5712 mL	32.8558 mL	65.7117 mL
5 mM	1.3142 mL	6.5712 mL	13.1423 mL
10 mM	0.6571 mL	3.2856 mL	6.5712 mL
50 mM	0.1314 mL	0.6571 mL	1.3142 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Dubinsky MC, et al. Clin Gastroenterol Hepatol. 2004 Sep;2(9):731-43.

Fu Y H, Xu Z X, Jiang N, et al. High-throughput screening of active compounds against human respiratory syncytial virus. Virology. 2019

Fu Y H, Xu Z X, Jiang N, et al. High-throughput screening of active compounds against human respiratory syncytial virus[J]. Virology. 2019, 535: 171-178.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481