

Certificate of Analysis

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Product Name: 6-Mercaptopurine

CAS Number: 50-44-2

IUPAC Name: Purine-6(1*H*)-thione

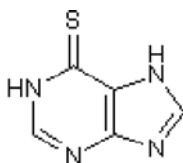
Catalog No.: 4103

Batch No.: 1

EC Number: 200-037-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅H₄N₄S.H₂O
Batch Molecular Weight: 170.2
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
 1eq. NaOH to 100 mM
 ethanol to 10 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	35.29	3.55	32.92
Found	35.5	3.58	32.85

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

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Description:

Inhibitor of de novo purine synthesis through interference with DNA and RNA synthesis. Immunosuppressive and antileukemic drug; reduces the anticoagulation elicited by warfarin. Active metabolite of azathioprine (Cat. No. 4099). Also inhibits SARS-CoV papain-like protease (PL^{pro}; IC₅₀ = 21.6 μM for PL^{pro} deubiquitination activity).

Physical and Chemical Properties:

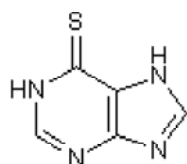
Batch Molecular Formula: C₅H₄N₄S.H₂O

Batch Molecular Weight: 170.2

Physical Appearance: Yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Sahasranaman et al (2008) Clinical pharmacology and pharmacogenetics of thiopurines. *Eur.J.Clin.Pharmacol.* **64** 753. PMID: 18506437.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

1eq. NaOH to 100 mM

ethanol to 10 mM

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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