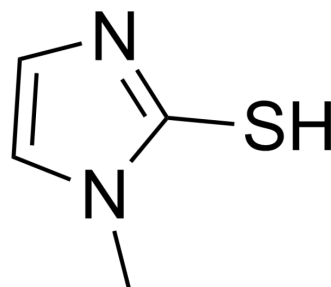


Methimazole

Cat. No.:	HY-B0208		
CAS No.:	60-56-0		
Molecular Formula:	C ₄ H ₆ N ₂ S		
Molecular Weight:	114.17		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (875.89 mM)
 H₂O : ≥ 50 mg/mL (437.94 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	8.7589 mL	43.7943 mL	87.5887 mL
	5 mM	1.7518 mL	8.7589 mL	17.5177 mL
	10 mM	0.8759 mL	4.3794 mL	8.7589 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (875.89 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (21.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (21.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (21.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Methimazole is an antithyroid compound widely used for the research of hyperthyroidism. Methimazole has potent hepatotoxicity^{[1][2]}.

In Vitro

Methimazole inhibits CXC chemokine ligand 10 secretion in human thyrocytes^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biosci Rep. 2021 May 10;BSR20204250.

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REFERENCES

- [1]. Nakamura H, et al. Comparison of methimazole and propylthiouracil in patients with hyperthyroidism caused by Graves' disease. J Clin Endocrinol Metab. 2007 Jun;92(6):2157-62. Epub 2007 Mar 27.
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- [3]. Tatara MR, et al. Effects of long-term oral administration of methimazole on femur and tibia properties in male Wistar rats. Biomed Pharmacother. 2017 Oct;94:124-128.
- [4]. Reza Heidari, et al. Mechanisms of methimazole cytotoxicity in isolated rat hepatocytes. Drug Chem Toxicol. 2013 Oct;36(4):403-11.

Caution: Product has not been fully validated for medical applications. For research use only.

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