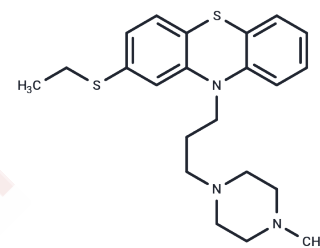


## Thiethylperazine

## Chemical Properties

CAS No. :	1420-55-9
Formula:	C <sub>22</sub> H <sub>29</sub> N <sub>3</sub> S <sub>2</sub>
Molecular Weight:	399.62
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Thiethylperazine (Tietilperazina) is an orally available, highly potent D2 receptor and H1 receptor antagonist and selective ABCC1 activator with antimicrobial and antiemetic activity that reduces amyloid $\beta$ ( $A\beta$ ) load in mice, is used to relieve vertigo, and can be used in studies of neurological diseases such as Alzheimer's disease and Parkinson's disease. Alzheimer's and Parkinson's diseases.
Targets(IC50)	Beta Amyloid, Antibacterial, ABC Transporter, Histamine Receptor, Dopamine Receptor
In vitro	Thiethylperazine enhances the activity of the antibiotic vancomycin at concentrations as low as 2 $\mu$ g/mL, and it inhibits vancomycin-sensitive and -resistant Enterococcus strains with MIC values of 8 $\mu$ g/mL, 16 $\mu$ g/mL, and 8 $\mu$ g/mL, respectively[3].
In vivo	Thiethylperazine (3 mg/kg; intramuscular injection; twice daily; for 30 days) markedly decreases $A\beta$ 42 levels in young APP/PS1 mice, utilizing an animal model comprising young mice genetically modified to express the amyloid precursor protein (APP <sup>swe</sup> ) and mutant presenilin-1 (PS1) [2], demonstrating a significant reduction in $A\beta$ 42 levels and offering insights into potential therapeutic approaches for Alzheimer's disease.

## Solubility Information

Solubility	DMSO: 80 mg/mL (200.19 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.5024 mL	12.5119 mL	25.0238 mL
5 mM	0.5005 mL	2.5024 mL	5.0048 mL
10 mM	0.2502 mL	1.2512 mL	2.5024 mL
50 mM	0.050 mL	0.2502 mL	0.5005 mL

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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

Czeizel AE, et al. Case-control study of teratogenic potential of thiethylperazine, an anti-emetic drug. BJOG. 2003 May;110(5):497-9.

Krohn M, et al. Cerebral amyloid- $\beta$  proteostasis is regulated by the membrane transport protein ABCC1 in mice. J Clin Invest. 2011 Oct;121(10):3924-31.

Rahbar M, et al. Enhancement of vancomycin activity by phenothiazines against vancomycin-resistant *Enterococcus faecium* in vitro. Basic Clin Pharmacol Toxicol. 2010 Aug;107(2):676-9.

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