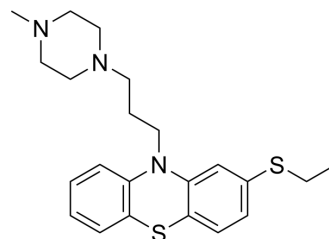


Thiethylperazine

Cat. No.:	HY-B1794
CAS No.:	1420-55-9
Molecular Formula:	C ₂₂ H ₂₉ N ₃ S ₂
Molecular Weight:	399.62
Target:	Dopamine Receptor; Histamine Receptor; Bacterial; Amyloid-β
Pathway:	GPCR/G Protein; Neuronal Signaling; Immunology/Inflammation; Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (250.24 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
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	

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

BIOLOGICAL ACTIVITY

Description

Thiethylperazine, a phenothiazine derivate, is an orally active and potent dopamine D₂-receptor and histamine H₁-receptor antagonist. Thiethylperazine is also a selective ABCC1 activator that reduces amyloid-β (Aβ) load in mice. Thiethylperazine has anti-emetic, antipsychotic and antimicrobial effects^{[1][2][3]}.

IC₅₀ & Target

D ₂ Receptor	H ₁ Receptor
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In Vitro

Thiethylperazine can enhance the antibiotic (Vancomycin) activity at a concentration as low as 2 μg/mL. Thiethylperazine inhibits Vancomycin-sensitive *E. faecalis* ATCC 29212, Vancomycin-resistant *E. faecalis* ATCC 51299 and vancomycin-resistant *E. faecalis* (VREF) isolates with MIC values of 8 μg/mL, 16 μg/mL and 8 μg/mL, respectively^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Thiethylperazine (3 mg/kg; intramuscular injection; twice daily; for 30 days) significantly reduces Aβ₄₂ levels in young APP/PS1 mice^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Young A β precursor protein (APP ^{swe}) and mutant presenilin-1 (PS1) (APP/PS1) mice ^[2]
Dosage:	3 mg/kg
Administration:	Intramuscular injection; twice daily; for 30 days
Result:	Significantly reduced A β 42 levels in APP/PS1 mice.

REFERENCES

- [1]. Czeizel AE, et al. Case-control study of teratogenic potential of thiethylperazine, an anti-emetic drug. BJOG. 2003 May;110(5):497-9.
- [2]. Krohn M, et al. Cerebral amyloid- β proteostasis is regulated by the membrane transport protein ABCC1 in mice. J Clin Invest. 2011 Oct;121(10):3924-31.
- [3]. 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.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA