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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Methapyrilene hydrochloride

Cat. No.: HY-B1483

CAS No.: 135-23-9

Molecular Formula: $C_{14}H_{20}ClN_3S$

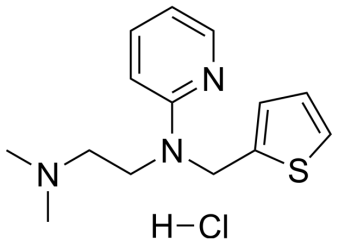
Molecular Weight: 297.85

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (33.57 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3574 mL	16.7870 mL	33.5739 mL
	5 mM	0.6715 mL	3.3574 mL	6.7148 mL
	10 mM	0.3357 mL	1.6787 mL	3.3574 mL

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

BIOLOGICAL ACTIVITY

Description

Methapyrilene (Thenylpyramine) hydrochloride is an orally active H1-receptor antihistamine and an anticholinergic agent of the pyridine chemical class. Methapyrilene hydrochloride has hepatotoxicity and can be used as a hepatotoxin that cause periportal hepatic necrosis in vivo[2]

IC_{50} & Target

H_1 Receptor

In Vitro

Methapyrilene hydrochloride (650 μM) results in a down-regulation of TF and up-regulation of FTL, while the level of HMOX1 is not changed. Additionally, the levels of CD44 and SOX9 proteins and the expression of PROM1 (CD133), hepatic stem cell-associated markers are increased[1].

Methapyrilene hydrochloride (650 μM) decreases CYP2E1, CYP3A4, NR1I3, ALB, mRNA expression and increases CD133 expression[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Methapyrilene hydrochloride (oral gavage; 40 or 80 mg/kg; 5 days per week; 6 weeks) results in changes in the expression of classic hepatotoxicity-related marker genes and iron homeostasis-related genes, especially a prominent, dose-dependent down-regulation of the transferrin (Tf) gene and an up-regulation of the ferritin, light chain (FTL) gene in rats[1].

Methapyrilene hydrochloride (oral gavage; 150 mg/kg; 3 days) causes periportal liver necrosis at high dosage. Methapyrilene

	is sufficient to induce liver necrosis, or a subtoxic dose of 50 mg/kg/day[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Iryna Kindrat, et al.Effect of methapyrilene hydrochloride on hepatic intracellular iron metabolism in vivo and in vitro. Toxicol Lett. 2017 Nov 5;281:65-73.

[2]. Andrew Craig, et al. Systems toxicology: integrated genomic, proteomic and metabonomic analysis of methapyrilene induced hepatotoxicity in the rat. J Proteome Res. 2006 Jul;5(7):1586-601.

[3]. Shawkat-Muhialdin Jangi, et al. H1 histamine receptor antagonists induce genotoxic and caspase-2-dependent apoptosis in human melanoma cells. Carcinogenesis. 2006 Sep;27(9):1787-96.

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