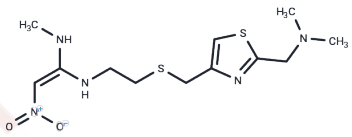
Data Sheet (Cat.No.T1575)

TargetMol

Nizatidine

Chemical Properties



CAS No. : 76963-41-2

Formula: C12H21N5O2S2

Molecular Weight: 331.46

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Nizatidine (Acinon) is a competitive and reversible histamine H2-receptor antagonist with antacid activity.
Targets(IC50)	Histamine Receptor,Cholinesterase (ChE)
In vitro	In rats, Nizatidine exhibits its maximum inhibitory effect on gastric acid secretion one hour after administration, with an EC50 value of 1.383 μMol/kg. Intravenous administration of Nizatidine (0.3-3 mg/kg) not only enhances gastrointestinal motility but also suppresses gastric acid secretion, achieving 50% of the maximal effect at a dose of 2.94 mg/kg and 90% at 19.6 mg/kg for rats.
In vivo	Nizatidine is a reversible, non-competitive inhibitor of acetylcholinesterase (IC50=6.7 μM, Ki=7.4 μM) and a selective antagonist of the histamine H2 receptor, effectively inhibiting gastric acid secretion (IC50=0.9 nM).

Solubility Information

Solubility	DMSO: 60 mg/mL (181.02 mM),Sonication is recommended. H2O: 26 mg/mL (78.44 mM),Sonication is recommended. Ethanol: 15 mg/mL (45.25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.017 mL	15.0848 mL	30.1696 mL
5 mM	0.6034 mL	3.017 mL	6.0339 mL
10 mM	0.3017 mL	1.5085 mL	3.017 mL
50 mM	0.0603 mL	0.3017 mL	0.6034 mL

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.

Reference

Lin TM, et al. J Pharmacol Exp Ther, 1986, 239(2), 406-410.
Ueki S, et al. J Pharmacol Exp Ther, 1993, 264(1), 152-157.

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