Data Sheet (Cat.No.T0783)

TargetMol

Mianserin hydrochloride

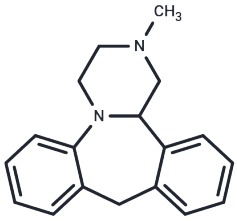
Chemical Properties

CAS No. : 21535-47-7

Formula: C18H21ClN2

Molecular Weight: 300.83

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	Mianserin hydrochloride (Org GB 94) is a tetracyclic compound with antidepressant properties that blocks alpha-adrenergic, histamine H1, and certain serotonin receptors; it may cause drowsiness and hematological issues.
Targets(IC50)	5-HT Receptor,Opioid Receptor,Adrenergic Receptor,Histamine Receptor,Dopamine Receptor
In vitro	Mianserin dose-dependently elevates extracellular norepinephrine levels in the prefrontal cortex with minimal impact on the reuptake of norepinephrine in the rat cerebral cortex, due to its blockade of presynaptic inhibitory α2-adrenergic receptors and induction of regeneration-mediated release enhancement. In neonatal 6-OHDA-lesioned rats, mianserin attenuates the effects of SKF38393 and M-CPP, indicating that the actions of dopamine receptor agonists are mediated through the 5-HT neurochemical system. Additionally, in the medial prefrontal cortex of neonatal 6-OHDA-lesioned rats, 10 mg/kg S.C. Mianserin increased extracellular dopamine approximately 6-fold.
In vivo	In elevated plus-maze experiments, Eltoprazine and Mianserin exhibit opposite effects: Eltoprazine induces anxiogenic-like behavior, while Mianserin triggers an anxiolytic-like response. Mianserin leads to a decreased number of these sites, whereas Eltoprazine results in an increase. Additionally, a subcutaneous dose of 2 mg/kg Mianserin produces a significant statistical increase in dopamine levels, exceeding 30% when compared to saline.

Solubility Information

Solubility	H2O: 99.7 mM,Sonication is recommended. DMSO: 4.23 mg/mL (14.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.32 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3241 mL	16.6207 mL	33.2414 mL
5 mM	0.6648 mL	3.3241 mL	6.6483 mL
10 mM	0.3324 mL	1.6621 mL	3.3241 mL
50 mM	0.0665 mL	0.3324 mL	0.6648 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.

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

de Boer TH, et al. J Pharmacol Exp Ther,1996, 277(2), 852-860.
Rocha B, et al. Eur J Pharmacol,1994, 262(1-2), 125-131.
Nakamura S, et al. Neuroreport, 1991, 2(9), 525-528.
Plech A, et al. Psychopharmacology (Berl),1995, 119(4), 466-473.
Tanda G, et al. Psychopharmacology (Berl),1996, 123(2), 127-130.