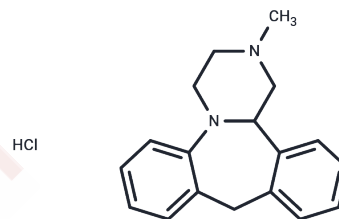


Mianserin hydrochloride

Chemical Properties

CAS No. :	21535-47-7
Formula:	C ₁₈ H ₂₁ ClN ₂
Molecular Weight:	300.83
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Mianserin hydrochloride (Org GB 94) is a tetracyclic compound with antidepressant properties that blocks alpha-adrenergic, histamine H ₁ , and certain serotonin receptors; it may cause drowsiness and hematological issues.
Targets(IC ₅₀)	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 α ₂ -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	H ₂ O: 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)
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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.

Reference

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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.

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