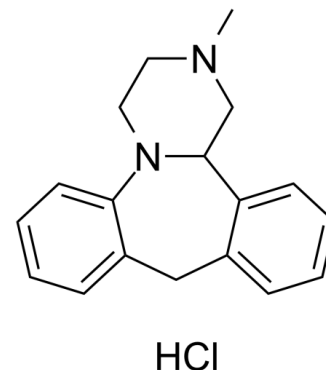


Data Sheet

Product Name:	Mianserin (hydrochloride)
Cat. No.:	CS-2079
CAS No.:	21535-47-7
Molecular Formula:	C ₁₈ H ₂₁ ClN ₂
Molecular Weight:	300.83
Target:	Histamine Receptor
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling
Solubility:	DMSO : 50 mg/mL (166.21 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Mianserin hydrochloride (Org GB 94) is a H₁ receptor inverse agonist and is a psychoactive agent of the tetracyclic antidepressant. **In Vitro:** Mianserin hydrochloride (Org GB 94) is a psychoactive drug of the tetracyclic antidepressant (TeCA) therapeutic family. It is classified as a noradrenergic and specific serotonergic antidepressant (NaSSA) and has antidepressant, anxiolytic (anti-anxiety), hypnotic (sedating), antiemetic (nausea and vomiting-attenuating), orexigenic (appetite-stimulating), and antihistamine effects. It is not approved for use in the US, but its analogue, mirtazapine, is. Mianserin was the first antidepressant to reach the UK market that was less dangerous than the tricyclic antidepressants in overdose. Mianserin is an antagonist/inverse agonist of the H₁, 5-HT_{1D}, 5-HT_{2A}, 5-HT_{2B}, 5-HT_{2C}, 5-HT₃, 5-HT₆, 5-HT₇, α₁-adrenergic, and α₂-adrenergic receptors, and also inhibits the reuptake of norepinephrine. As a high affinity H₁ receptor inverse agonist, mianserin has strong antihistamine effects (sedation, weight gain, etc.). Contrarily, it has negligible affinity for the mACh receptors, and thus lacks any anticholinergic properties. It was recently found to be a potent kappa opioid receptor agonist. In addition, mianserin also appears to be a potent antagonist of the neuronal octopamine receptor. What implications this may have on mood are currently unknown, however octopamine has been implicated in the regulation of sleep, appetite and insulin production and therefore may theoretically contribute to the overall side effect profile of mianserin.

References:

- [1]. Olanas MC, et al. The atypical antidepressant mianserin exhibits agonist activity at κ-opioid receptors. Br J Pharmacol. 2012 Nov;167(6):1329-41.
- [2]. Roeder T. High-affinity antagonists of the locust neuronal octopamine receptor. Eur J Pharmacol. 1990 Nov 27;191(2):221-4.

CAIndexNames:

Dibenzo[c,f]pyrazino[1,2-a]azepine, 1,2,3,4,10,14b-hexahydro-2-methyl-, hydrochloride (1:1)

SMILES:

CN(CC1)CC2N1C3=CC=CC=C3CC4=CC=CC=C24.Cl

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

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