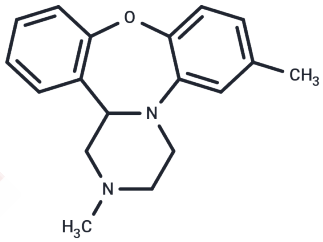
Data Sheet (Cat.No.T69734)

TargetMol

Org GC 94

Chemical Properties



CAS No. : 22485-08-1

Formula: C18H20N2O

Molecular Weight: 280.36

Storage: Store at low temperature
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	Org GC 94 is a psychoactive small-molecule compound belonging to the tetracyclic antidepressant (TeCA) therapeutic family, extensively characterized as a noradrenergic and specific serotonergic antidepressant (NaSSA) with clinically documented antidepressant, anxiolytic, hypnotic, antiemetic, orexigenic, and antihistamine pharmacological effects. Org GC 94 mechanistically acting as an antagonist or inverse agonist at H1, 5-HT1D, 5-HT2A, 5-HT2B, 5-HT2C, 5-HT3, 5-HT6, 5-HT7, α1-adrenergic, and α2-adrenergic receptors, inhibiting norepinephrine reuptake, exhibiting high-affinity H1 inverse agonism associated with sedation and weight gain, showing negligible affinity for muscarinic acetylcholine receptors and thus lacking anticholinergic effects.
Targets(IC50)	Adrenergic Receptor
In vitro	**Method**: Radioligand binding, [^{35}S]GTPγS functional assays, and MAPK phosphorylation assays were performed in CHO cells transfected with human opioid receptors, C6 glioma cells, and rat brain membranes to assess Org GC 94 activity, with nor-binaltorphimine used as a κ-opioid receptor antagonist. **Result**: Org GC 94 showed 12- and 18-fold higher affinity for κ-opioid receptors than for μ- and δ-opioid receptors, selectively activated κ-opioid receptors, increased ERK1/2 phosphorylation in CHO and C6 cells, and stimulated [^{35}S]GTPγS binding in rat striatum and nucleus accumbens with partial agonist efficacy that was antagonized by nor-binaltorphimine[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5668 mL	17.8342 mL	35.6684 mL
5 mM	0.7134 mL	3.5668 mL	7.1337 mL
10 mM	0.3567 mL	1.7834 mL	3.5668 mL
50 mM	0.0713 mL	0.3567 mL	0.7134 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

Olianas MC,et al. The atypical antidepressant mianserin exhibits agonist activity at κ-opioid receptors. Br J Pharmacol. 2012 Nov;167(6):1329-41.