

CGP 25454A

Chemical Properties

CAS No. : 104391-26-6

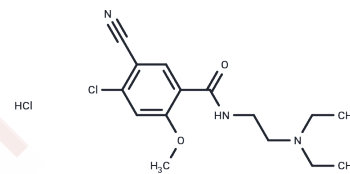
Formula: C₁₅H₂₁Cl₂N₃O₂

Molecular Weight: 346.25

Keep away from moisture

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	CGP 25454A is a selective antagonist that acts on presynaptic dopamine autoreceptors; CGP 25454A promotes increased release of dopamine and acetylcholine and has potential applications in research on major depressive disorder.
Targets(IC50)	Dopamine Receptor
In vitro	CGP 25454A increases the field-stimulated [3H]- and [14C]-overflow from rat striatal slices preloaded with [3H]dopamine and [14C]choline, indicating that CGP 25454A is able to enhance the release of both dopamine (DA) and acetylcholine (ACh). However, CGP 25454A is 12.9 times more potent in increasing, by 1/6 of the apparent maximal increase, the release of [3H]DA than that of [14C]ACh.
In vivo	CGP 25454A increase [3H]spiperone binding to receptors of the D2 family in rat striatum by 90-110% (ED50: 13 mg/kg i.p.). At 30-100 mg/kg, CGP 25454A inhibits [3H]spiperone binding in the pituitary of the same animals as a result of a blockade of postsynaptic DA receptors.

Solubility Information

Solubility	DMSO: 3.5 mg/mL (10.11 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	2.8881 mL	14.4404 mL	28.8809 mL
5 mM	0.5776 mL	2.8881 mL	5.7762 mL
10 mM	0.2888 mL	1.444 mL	2.8881 mL
50 mM	0.0578 mL	0.2888 mL	0.5776 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

Bischoff S et al. CGP 25454A, a novel and selective presynaptic dopamine autoreceptor antagonist. Naunyn Schmiedebergs Arch Pharmacol. 1994 Sep;350(3):230-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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