CGP 25454A

Cat. No.: HY-100454

CAS No.: 104391-26-6

Molecular Formula: $C_{15}H_{21}Cl_2N_3O_2$

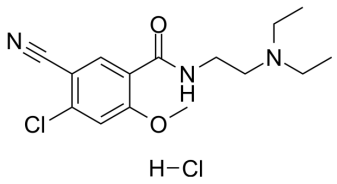
Molecular Weight: 346.25

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 3.5 mg/mL (10.11 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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	1.4440 mL	2.8881 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

CGP 25454A is a selective presynaptic dopamine autoreceptor antagonist which induces the increase of dopamine and acetyl choline. CGP 25454A can be used for major depression research[1].

In Vitro

CGP 25454A (0.5-10 μM, 15 min) elicits a reproducible and concentration-dependent increase of the release of both DA and ACh in rat striatal slices with an increase by 62±3% and 100±7% at 10 μM. CGP 25454A is 12.9 fold more potent at pre- than post-synaptic DA receptors[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

CGP 25454A (10-100 mg/kg, i.p., 60 min) produces a marked, close-dependent increase in Spiperone binding in rat striatum [1].

CGP 25454A (0.5-100 mg/kg, i.p., 10-60 min) exerts opposite effects with a slight behavioral stimulation at low doses and a clear-cut central depressant action in the higher dose range[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Tif rats with Amphetamine-induced hyperactivity[1]
Dosage:	0.5-100 mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Did not modify ambulation but increased rearing at 2.5 and 10mg/kg, started to produce sedation at 30 mg/kg and sedation became strong at 100 mg/kg as rats were almost motionless and none of them were cataleptic.

REFERENCES

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

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