Cirazoline hydrochloride

Cat. No.: HY-101300

CAS No.: 40600-13-3

Molecular Formula: $C_{13}H_{17}ClN_2O$

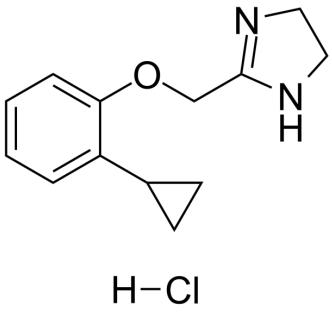
Molecular Weight: 252.74

Target: Adenosine Receptor

Pathway: GPCR/G Protein

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

H_2O : 33.33 mg/mL (131.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9566 mL	19.7832 mL	39.5664 mL
	5 mM	0.7913 mL	3.9566 mL	7.9133 mL
	10 mM	0.3957 mL	1.9783 mL	3.9566 mL

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

BIOLOGICAL ACTIVITY

Description

Cirazoline hydrochloride (LD 3098 hydrochloride) is a potent competitive full α1A-adrenergic receptor (α1A-AR) agonist (K_i =120 nM) and only a partial agonist at α1B-AR (K_i= 960 nM) and α1D-AR (K_i=660 nM)[1].

In Vitro

Cirazoline hydrochloride (5-10 μM; 24 hours) does not alter GIC survival and counteracted only poorly prazosin-induced GIC death[1].

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

Cell Viability Assay[1]

Cell Line:	Glioblastoma-initiating cells
Concentration:	5 μM; 10 μM
Incubation Time:	24 hours
Result:	Did not effect GIC cell survival.

In Vivo

Cirazoline hydrochloride (drinking water; 40 μM; 9 month) exhibits significantly decreased immobility in the TST and

enhances neurogenesis in the mouse[1].

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

Animal Model:	B6/CBA mice[1]
Dosage:	40 μM
Administration:	Drinking water; 40 μM; 9 month
Result:	Reversed antidepressant-like phenotype of CAM α1A-AR Mice .

REFERENCES

[1]. Doze VA, et al. alpha(1A)- and alpha(1B)-adrenergic receptors differentially modulate antidepressant-like behaviorin the mouse.Brain Res. 2009 Aug 18;1285:148-57.

[2]. Suzana Assad Kahn , et al. The Anti-Hypertensive Drug Prazosin Inhibits Glioblastoma Growth via the PKCδ-dependent Inhibition of the AKT Pathway. EMBO Mol Med. 2016 May 2;8(5):511-26.

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