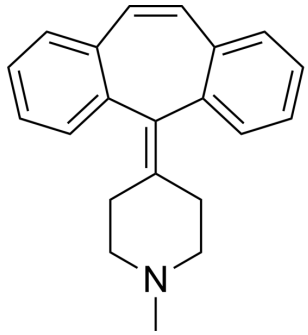
Cyproheptadine



Cat. No.: HY-B1622

CAS No.: 129-03-3

Molecular Formula: $C_{21}H_{21}N$

Molecular Weight: 287.4

Target: 5-HT Receptor; Apoptosis

Pathway: GPCR/G Protein; Neuronal Signaling; Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO : 3.17 mg/mL (11.03 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 60°C)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	3.4795 mL	17.3974 mL	34.7947 mL
5 mM	0.6959 mL	3.4795 mL	6.9589 mL
10 mM	0.3479 mL	1.7397 mL	3.4795 mL

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

BIOLOGICAL ACTIVITY

Description

Cyproheptadine is a potent and orally active 5-HT_{2A} receptor antagonist, with antidepressant and antiserotonergic effects. Cyproheptadine has antiplatelet and thromboprotective activities. Cyproheptadine can be used for the research of thromboembolic disorders[1][2].

In Vitro

Cyproheptadine (0.01-100 nM; 1 minute) dose-dependently inhibits serotonin-enhanced ADP-induced mouse platelet aggregation in vitro[2].

Cyproheptadine (10 nM) has the ability to inhibit 15 μM serotonin-enhanced ADP-induced (1 μM) tyrosine phosphorylation in platelets in vitro[2].

Cyproheptadine inhibits human platelet PS exposure (Annexin V), P-selectin, and GPIIb-IIIa (PAC-1 binding) activation in vitro[2].

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

In Vivo

Cyproheptadine can be used in animal modeling to construct diabetes models.

Cyproheptadine (1 mg/kg; i.p.; daily, for 5 days; C57BL/6 mice) exerts thromboprotective properties in vivo[2].

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

Animal Model:	C57BL/6 mice (8-10 weeks old)[2]
Dosage:	1 mg/kg
Administration:	Intraperitoneal injection; daily, for 5 days
Result:	Prolonged occlusion times and tail bleeding times in mice.

CUSTOMER VALIDATION

- PLoS Negl Trop Dis. 2019 Aug 20;13(8):e0007681.

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REFERENCES

[1]. Calka O, et, al. Effect of cyproheptadine on serum leptin levels. Adv Ther, 2005. 22(5): p. 424-8.

[2]. Olivia A Lin, et al. The Antidepressant 5-HT2A Receptor Antagonists Pizotifen and Cyproheptadine Inhibit Serotonin-Enhanced Platelet Function. PLoS One. 2014; 9(1): e87026.

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