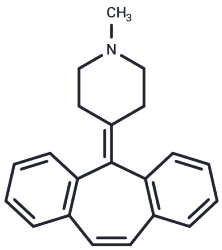
Data Sheet (Cat.No.T60576)

TargetMol

Cyproheptadine

Chemical Properties



CAS No. : 129-03-3

Formula: C21H21N

Molecular Weight: 287.4

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	Cyproheptadine is an orally active serotonin 5-HT2A receptor antagonist with multiple pharmacological properties including antidepressant, anti-serotonin, antiplatelet, and antithrombotic effects. Cyproheptadine is used as a research compound for investigating thromboembolic diseases, serotonergic signaling, and potential links between serotonin modulation and metabolic disorders such as diabetes.
Targets(IC50)	5-HT Receptor
In vitro	In in vitro experiments, Cyproheptadine (0.01–100 nM, 1 minute) dose-dependently inhibited serotonin-enhanced ADP-induced mouse platelet aggregation [2]; at a concentration of 10 nM, Cyproheptadine suppressed 15 μM serotonin-potentiated 1 μM ADP-induced platelet tyrosine phosphorylation [2]; Cyproheptadine also inhibited activation markers of homo sapiens platelets, including phosphatidylserine (PS) exposure (detected by annexin V), P-selectin (CD62P), and the GPIIb-IIIa complex (assessed via PAC-1 binding) [2].
In vivo	Cyproheptadine (1 mg/kg, intraperitoneal injection, once daily for 5 consecutive days) significantly prolonged the arterial occlusion time and tail bleeding time in C57BL/6 mice [2].

Solubility Information

Solubility	DMSO: 2 mg/mL (6.96 mM),when pH is adjusted to 3 with HCl. Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0696 mL	0.3479 mL	0.6959 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

Iwaki M, et al. Pharmacokinetics of cyproheptadine and its metabolites in rats. Biol Pharm Bull. 1993 Dec;16(12): 1276-81.
Codd EE, et al. Diabetogenic effect of a series of tricyclic delta opioid agonists structurally related to cyproheptadine. Toxicol Sci. 2010 Oct;117(2):493-504.
Padrid PA, et al. Cyproheptadine-induced attenuation of type-I immediate-hypersensitivity reactions of airway smooth muscle from immune-sensitized cats. Am J Vet Res. 1995 Jan;56(1):109-15. Erratum in: Am J Vet Res 1995 Mar;56(3):402.
Calka O, et, al. Effect of cyproheptadine on serum leptin levels. Adv Ther, 2005. 22(5): p. 424-8.
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.