Fenclonine

Cat. No.: HY-B1368

CAS No.: 7424-00-2

Molecular Formula: $C_9H_{10}ClNO_2$

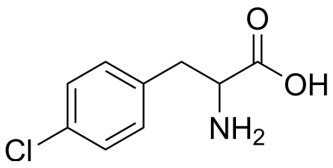
Molecular Weight: 199.63

Target: Tryptophan Hydroxylase

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (500.93 mM; ultrasonic and adjust pH to 2 with HCl)

H_2O : 4.55 mg/mL (22.79 mM; ultrasonic and warming and adjust pH to 2 with HCl and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.0093 mL	25.0463 mL	50.0927 mL
5 mM	1.0019 mL	5.0093 mL	10.0185 mL
10 mM	0.5009 mL	2.5046 mL	5.0093 mL

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

In Vivo

1. Add each solvent one by one: 0.5% CMC-Na/saline water
   Solubility: 20 mg/mL (100.19 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (12.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.52 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fenclonine is a selective and irreversible tryptophan hydroxylase inhibitor, which is a rate-limiting enzyme in the biosynthesis of serotonin. Fenclonine can be used in carcinoid syndrome research[1][2][3].

In Vivo

Fenclonine (intraperitoneal injection; 100 mg/kg; once daily; 3 d) treatment can inhibit Morphine-induced anti-nociceptive

activity[2].

?Fenclonine (intraperitoneal injection; 300 mg/kg; once daily; 3 d) pretreatment completely abolishes the effects of a 50?mg/kg dose of Paracetamol[3].

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

Animal Model:	Wistar albino rats of either sex and weighing between 80 and 100 g[2]
Dosage:	100 mg/kg
Administration:	Intraperitoneal injection; 100 mg/kg; once daily; 3 days
Result:	Inhibited the antinociceptive activity of Morphine by 41.5%.

Animal Model:	Male Swiss mice (22–25 g)[3]
Dosage:	300 mg/kg
Administration:	Intraperitoneal injection; 300 mg/kg; once daily; 3 days
Result:	Inhibited the effects of Paracetamol in depression-like and compulsion-like behavior.

CUSTOMER VALIDATION

- Food Chem. 2022 Dec 9;407:135172.
- Food Chem. 2021 Mar 1;339:127864.
- Food Res Int. 2024 Apr, 181, 114094.
- Food Res Int. 1 November 2022, 112088.
- EMBO Rep. 2024 Jan 22.

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REFERENCES

[1]. M Jouvet. Sleep and serotonin: an unfinished story. Neuropsychopharmacology. 1999 Aug;21(2 Suppl):24S-27S.

[2]. A K Sanyal, et al. Prostaglandins: antinociceptive effect of prostaglandin E1 in the rat. Clin Exp Pharmacol Physiol. 1977 May-Jun;4(3):247-55.

[3]. Shyamshree S S Manna, et al. Paracetamol potentiates the antidepressant-like and anticompulsive-like effects of fluoxetine. Behav Pharmacol. 2015 Apr;26(3):268-81.

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