Opipramol

Cat. No.: HY-118901

CAS No.: 315-72-0

Molecular Formula: $C_{23}H_{29}N_3O$

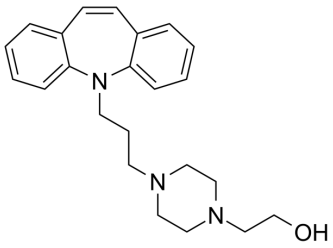
Molecular Weight: 363.5

Target: Sigma Receptor

Pathway: Neuronal Signaling

Storage:

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (275.10 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7510 mL	13.7552 mL	27.5103 mL
	5 mM	0.5502 mL	2.7510 mL	5.5021 mL
	10 mM	0.2751 mL	1.3755 mL	2.7510 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Opipramol (Ensidon) is an atypical tricyclic antidepressant (TCA). Opipramol acts primarily as a sigma (σ) receptor agonist and can potently interact with sigma recognition sites with a K_i value of 50 nM. Opipramol can be used for the research of generalized anxiety disorder (GAD)[1][2].

IC_{50} & Target

Ki: 50 nM (σ receptor); IC50: 5.5 μM ([^{3}H] DA)[1].

In Vitro

Opipramol can potently interact with sigma recognition sites with a K_i value of 50 nM[1].
Opipramol inhibit the uptake of [^{3}H] DA in crude synaptosomal preparations with an IC_{50} value of 5.5 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Opipramol (i.p.; 5-50 mg/kg) increases dopamine release in vivo[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats (male, 150-l 80 g)[2]
Dosage:	5-50 mg/kg
Administration:	Intraperitoneal injections
Result:	Increased the levels of DOPAC and HVA in the striatum of the rat, without changing the steady-state levels of DA. Potently increased the metabolism of dopamine in the striatum, olfactory tubercle and pyriform cortex of the rat. Increased plasma prolactin in the rat, only at a dose as large as 50 mg/kg dose.

REFERENCES

[1]. H J Möller, et al. Opipramol for the treatment of generalized anxiety disorder: a placebo-controlled trial including an alprazolam-treated group. J Clin Psychopharmacol. 2001 Feb;21(1):59-65.

[2]. T S Rao, et al. Neurochemical characterization of dopaminergic effects of opipramol, a potent sigma receptor ligand, in vivo. Neuropharmacology. 1990 Dec;29(12):1191-7.

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