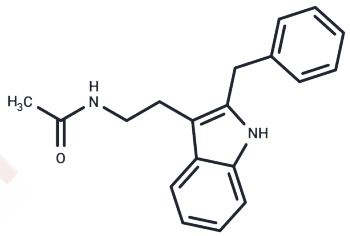
Data Sheet (Cat.No.T15795)

TargetMol

Luzindole

Chemical Properties



CAS No. : 117946-91-5

Formula: C19H20N2O

Molecular Weight: 292.37

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Luzindole (N-0774) is a selective melatonin receptor antagonist that inhibits experimental autoimmune encephalomyelitis and exhibits antidepressant-like activity. It preferentially targets MT2 (Mel1b) over MT1 (Mel1a), with Ki values of 10.2 nM for human MT2 and 158 nM for MT1.
Targets(IC50)	Melatonin Receptor,MT Receptor
In vitro	Luzindole (5-10 μg/ml) suppresses antigen-specific proliferation of the MBP-reactive LV-4 T cell line[1].
In vivo	Luzindole (30 mg/kg i.p.) decreases the time of immobility in a dose-dependent manner, the effect being more pronounced at midnight (60% reduction) than at noon (39% reduction). Luzindole (30 mg/kg; i.p.; days 0-5) inhibits experimental autoimmune encephalomyelitis[2]. Luzindole (30 mg/kg i.p.) did not modify the time of immobility either at noon or midnight in the albino ND/4 mouse, or in the C57BL/6J mouse, which does not produce melatonin[3]. The effect of luzindole is time-dependent, showing a maximal effect at 60 min. The anti-immobility effect of luzindole (10 mg/kg i.p.) is prevented by the administration of melatonin (30 mg/kg i.p.).

Solubility Information

Solubility	DMSO: 100 mg/mL (342.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (13.68 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4203 mL	17.1016 mL	34.2032 mL
5 mM	0.6841 mL	3.4203 mL	6.8406 mL
10 mM	0.342 mL	1.7102 mL	3.4203 mL
50 mM	0.0684 mL	0.342 mL	0.6841 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

Dubocovich ML, et al. Melatonin receptor antagonists that differentiate between the human Mel1a and Mel1b recombinant subtypes are used to assess the pharmacological profile of the rabbit retina ML1 presynaptic heteroreceptor. Naunyn Schmiedebergs Arch Pharmacol. 1997 Mar;355(3):365-75.
Constantinescu CS, et al. Luzindole, a melatonin receptor antagonist, suppresses experimental autoimmune encephalomyelitis. Pathobiology. 1997;65(4):190-4.
Dubocovich ML Antidepressant-like activity of the melatonin receptor antagonist, luzindole (N-0774), in the mouse behavioral despair test. Eur J Pharmacol. 1990 Jul 3;182(2):313-25.