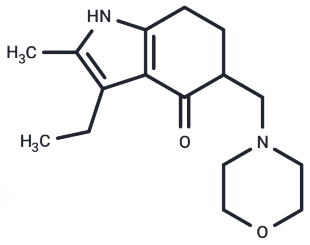
Data Sheet (Cat.No.T21432)

TargetMol

Molindone

Chemical Properties



CAS No. : 7416-34-4

Formula: C16H24N2O2

Molecular Weight: 276.37

Storage: 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	Molindone ((±)-Molindone) is a therapeutic antipsychotic used to treat schizophrenia by blocking the action of dopamine in the brain. molindone is often used in combination with serotonin in a dose-dependent manner to increase errors and decrease response rates.
Targets(IC50)	Dopamine Receptor
In vivo	Molindone (1 to 10 mg/kg ; subcutaneous injection ; rat) produced a reduction in striatal p-tyramine, an increase in m-tyramine and an increase in dopamine turnover.[5] Molindone (100 mg/kg ; subcutaneous injection ; rat) the effects on both tyramines and on dopamine metabolism were reversed. These results can be interpreted as molindone acting as a partial agonist.[5] The concentrations of hypothalamic p- and m-octopamine were increased by the higher doses of molindone (20 to 100 mg/kg ; subcutaneous injection ; rat) employed while lower doses produced no significant effects.[5]

Solubility Information

Solubility	H2O: Insoluble, DMSO: 122.5 mg/mL (443.25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 3.5 mg/mL (12.66 mM),Solution. *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	3.6183 mL	18.0917 mL	36.1834 mL
5 mM	0.7237 mL	3.6183 mL	7.2367 mL
10 mM	0.3618 mL	1.8092 mL	3.6183 mL
50 mM	0.0724 mL	0.3618 mL	0.7237 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

McCue RE, et al. Treatment of morbidly obese psychotic patients with molindone: three case reports. J Clin Psychiatry. 2009 ; 70(11):1606-1607.
Bagnall A, et al. Molindone for schizophrenia and severe mental illness. Cochrane Database Syst Rev. 2000 ; (2): CD002083.
Krishna G, et al. In vitro and in vivo genotoxicity assessment of the dopamine receptor antagonist molindone hydrochloride. Environ Mol Mutagen. 2016 ; 57(4):288-298.
Owen RR Jr, et al. Molindone hydrochloride: a review of laboratory and clinical findings. J Clin Psychopharmacol. 1989 ; 9(4):268-276.
Juorio AV. Effects of molindone and fluphenazine on the brain concentration of some phenolic and catecholic amines in the mouse and the rat. Br J Pharmacol. 1980 ; 70(3):475-480.