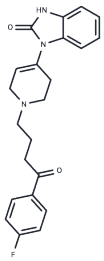
Data Sheet (Cat.No.T0990)

TargetMol

Droperidol

Chemical Properties



CAS No. : 548-73-2

Formula: C22H22FN3O2

Molecular Weight: 379.43

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	Droperidol (Dehydrobenzperidol) is a Dopamine-2 Receptor Antagonist. The mechanism of action of droperidol is as a Dopamine D2 Antagonist.
Targets(IC50)	GABA Receptor,AChR,Dopamine Receptor
In vitro	Droperidol has a dual effect on repolarization, prolonging the development of EADs and the subsequent triggering of activity in rabbit Purkinje fibers at low concentrations. In rabbit Purkinje fibers stimulated with 60 pulses/min, 0.01 mM-0.3 mM Droperidol increased action potential duration (APD) in a dose-dependent manner without altering other parameters.1 mM-3 mM Droperidol resulted in a reversal of the prolongation effect in rabbit Purkinje fibers.10 mM- 30 mM Droperidol produced a shortening of the APD at 50% repolarization, accompanied by significant reductions in Vmax, action potential amplitude, and resting membrane potential in rabbit Purkinje fibers. A single dose of 3 mg/kg Droperidol not only dose-dependently reduced activity and rearing frequency in the open-field experiment, but also reduced the Apomorphine effect in rats.Droperidol (3 mg/kg, long-term administration) induced significant tolerance to all activity parameters recorded in the rat open field.
In vivo	Droperidol has been shown to block potassium efflux from the myocardium of isolated animal ventricular myocytes, resulting in a dose-dependent delay in repolarization. Droperidol also induces early depolarization of Purkinje fibers in isolated animals. Droperidol produces mild alpha-adrenergic blockade and peripheral vasodilation.

Solubility Information

Solubility	DMSO: 247.5 mg/mL (652.29 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: 2 mg/mL (5.27 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	2.6355 mL	13.1777 mL	26.3553 mL
5 mM	0.5271 mL	2.6355 mL	5.2711 mL
10 mM	0.2636 mL	1.3178 mL	2.6355 mL
50 mM	0.0527 mL	0.2636 mL	0.5271 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

Kao LW, et al. Ann Emerg Med, 2003, 41(4), 546-558.
Adamantidis MM, et al. J Pharmacol Exp Ther, 1993, 266(2), 884-893.
Frussa-Filho R, et al. Physiol Behav, 1991, 50(4), 825-830.