Dimenhydrinate

Cat. No.: HY-B1215

CAS No.: 523-87-5

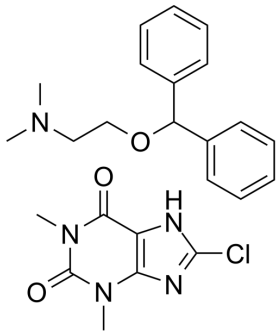
Molecular Formula: $C_{24}H_{28}ClN_5O_3$

Molecular Weight: 469.96

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 37 mg/mL (78.73 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
	1 mM	2.1278 mL	10.6392 mL	21.2784 mL
	5 mM	0.4256 mL	2.1278 mL	4.2557 mL
	10 mM	0.2128 mL	1.0639 mL	2.1278 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: ≥ 2.08 mg/mL (4.43 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.43 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dimenhydrinate is an orally active H1-antihistamine consisting of Diphenhydramine (HY-B0303) and 8-Chlorotheophylline. Dimenhydrinate is used to prevent nausea, vomiting, dizziness, and vertigo associated with motion sickness[1].

IC_{50} & Target

H_1 Receptor

In Vivo

Dimenhydrinate (3-30 mg/kg; i.p.) significantly increases conditioned place preference (CPP) scores (+105.4 s) at a dose of 30 mg/kg[1].

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

Animal Model:	Male ICR mice (22-28 g)[1]
Dosage:	3, 10, and 30 mg/kg
Administration:	IP; single dose
Result:	Significantly increased CPP scores (+105.4 s) compared to those of the vehicle-treated control group.

REFERENCES

[1]. Thi-Lien Nguyen, et al. Assessment of the rewarding effects of dimenhydrinate using the conditioned place preference paradigm in mice. Neurosci Lett. 2010 Feb 26;471(1):38-42.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA