Chlorprothixene hydrochloride

Cat. No.: HY-B0274A

CAS No.: 6469-93-8

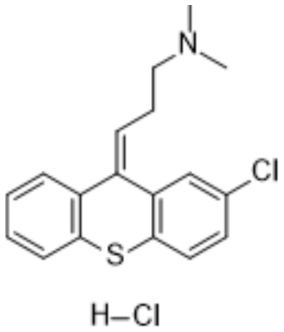
Molecular Formula: $C_{18}H_{19}Cl_2NS$

Molecular Weight: 352.32

Target: Dopamine Receptor; Histamine Receptor; Bacterial

Pathway: GPCR/G Protein; Neuronal Signaling; Immunology/Inflammation; Anti-infection

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 25 mg/mL (70.96 mM; Need ultrasonic)
Ethanol : 25 mg/mL (70.96 mM; Need ultrasonic)
DMSO : 2.5 mg/mL (7.10 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8383 mL	14.1916 mL	28.3833 mL
	5 mM	0.5677 mL	2.8383 mL	5.6767 mL
	10 mM	0.2838 mL	1.4192 mL	2.8383 mL

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

In Vivo

1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.10 mM); Clear solution
2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.10 mM); Clear solution
3. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.10 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Chlorprothixene hydrochloride is a dopamine and histamine receptors antagonist with K_is of 18 nM, 2.96 nM, 4.56 nM, 9 nM and 3.75 nM for hD1, hD2, hD3, hD5 and hH1 receptors, respectively. Antipsychotic activity[1].

IC_{50} & Target

Human D_1 Receptor	Human D_2 Receptor	Human D_3 Receptor	Human D_5 Receptor
18 nM (Ki)	2.96 nM (Ki)	4.56 nM (Ki)	9 nM (Ki)

Human H_1 Receptor

	3.75 nM (Ki)
In Vitro	Chlorprothixene binds to 5-HT receptors with pK_is of 8.3, 8.5, and 9.4 for 5-HT7, 5-HT6 and 5-HT2, respectively[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Y von Coburg, et al. Potential utility of histamine H3 receptor antagonist pharmacophore in antipsychotics. Bioorg Med Chem Lett. 2009 Jan 15;19(2):538-42.

[2]. B L Roth, et al. Binding of typical and atypical antipsychotic agents to 5-hydroxytryptamine-6 and 5-hydroxytryptamine-7 receptors. J Pharmacol Exp Ther. 1994 Mar;268(3):1403-10.

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