SB-269970 hydrochloride

Cat. No.: HY-15370A

CAS No.: 261901-57-9

Molecular Formula: $C_{18}H_{29}ClN_2O_3S$

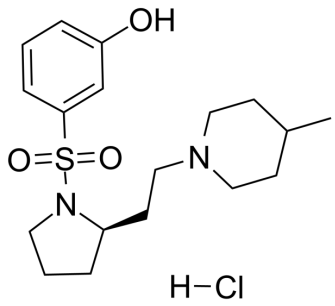
Molecular Weight: 388.95

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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

DMSO : ≥ 30 mg/mL (77.13 mM)

H_2O : 10 mg/mL (25.71 mM; ultrasonic and warming and heat to 60°C)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5710 mL	12.8551 mL	25.7102 mL
5 mM	0.5142 mL	2.5710 mL	5.1420 mL
10 mM	0.2571 mL	1.2855 mL	2.5710 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 10 mg/mL (25.71 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.43 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SB-269970 hydrochloride is a potent, selective and brain-penetrant 5-HT7 receptor antagonist with a pK_i of 8.3. SB-269970 hydrochloride exhibits >50-fold selectivity against other 5-HT receptors[1][2].

IC_{50} & Target

$5\text{-}HT_7$ Receptor
8.3 (pKi)

In Vivo

SB269970 hydrochloride (SB-269970A) (3-30 mg/kg; i.p.; once) significantly blocks amphetamine and ketamine-induced

hyperactivity[2].

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

Animal Model:	Male C57BL6/J mice[1]
Dosage:	3, 10, 30 mg/kg
Administration:	Intraperitoneal injection; once
Result:	Significantly blocked amphetamine and ketamine-induced hyperactivity.

CUSTOMER VALIDATION

- Protein Cell. 2019 Mar;10(3):178-195.

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REFERENCES

[1]. http://www.ncbi.nlm.nih.gov/pubmed/10821781

[2]. Roberts C, et al. The effect of SB-269970, a 5-HT(7) receptor antagonist, on 5-HT release from serotonergic terminals and cell bodies. Br J Pharmacol. 2001 Apr;132(7):1574-80.

[3]. Monti JM, et al. The serotonin 5-HT7 receptor agonist LP-44 microinjected into the dorsal raphe nucleus suppresses REM sleep in the rat. Behav Brain Res. 2008 Aug 22;191(2):184-9.

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