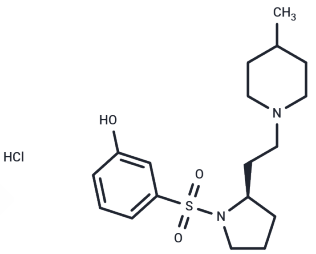
Data Sheet (Cat.No.T6655)

TargetMol

SB-269970 hydrochloride

Chemical Properties



CAS No. :	261901-57-9
Formula:	C18H28N2O3S·HCl
Molecular Weight:	388.95
Appearance:	no data available
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	SB-269970 hydrochloride (SB-269970A) , a hydrochloride salt form of SB-269970, is a 5-HT7 receptor antagonist (pKi of 8.3) and exhibits >50-fold selectivity against other receptors.
Targets(IC50)	5-HT Receptor
In vitro	SB-269970 inhibits 5-CT-stimulated adenylyl cyclase activity in guinea-pig hippocampal membranes. SB-269970 (0.03 μM, 0.1 μM, 0.3 μM and 1 μM) produces a concentration-related rightward-shift of the 5-CT concentration-response curve with no significant alteration in the maximal response to 5-CT. [1] SB-269970 (1 μM) has any effect on 5-HT efflux when superfused alone. [2]
In vivo	SB-269970 (10 mg/kg and 30 mg/kg) significantly reduces the effects of amphetamine by 25 and 27%, respectively, and blocks the effects of ketamine by 38% (10 mg/kg) and 30% (30 mg/kg). SB-269970 significantly reduces amphetamine-induced hyperactivity in wild-type mice and is without effects in 5-HT7 knockout mice. Systemic administration of SB-269970 (30 mg/kg) significantly reverses amphetamine disruption of PPI and did not enhance PPI by itself compared to control. [3] SB-269970 significantly reverses the deficits induced by MK-801, but not by scopolamine. SB-269970 normalizes MK-801-induced glutamate but not dopamine release in the cortex. [4] SB-269970 (in one medium dose of 0.5 or 1 mg/kg) exerts a specific antianxiety-like effect in the Vogel drinking test in rats, in the elevated plus-maze test in rats and in the four-plate test in mice. Moreover, SB-269970 (in one medium dose of 5 or 10 mg/kg) reveals antidepressant-like activity in the forced swimming and the tail suspension tests in mice. [5] SB-269970 at doses of 0.3, 1 and 3 μg exhibits an anticonflict effect which is weaker than that of diazepam (40 μg), whereas SB-269970 at doses of 3 and 10 μg had marked anti-immobility action comparable to that of imipramine (0.1 μg). [6]

Solubility Information

Solubility	H2O: 7.8 mg/mL (20.05 mM),Sonication is recommended. DMSO: 12 mg/mL (30.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.571 mL	12.8551 mL	25.7102 mL
5 mM	0.5142 mL	2.571 mL	5.142 mL
10 mM	0.2571 mL	1.2855 mL	2.571 mL
50 mM	0.0514 mL	0.2571 mL	0.5142 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.

Reference

Hagan JJ, et al. Br J Pharmacol, 2000, 130(3), 539-548.
Roberts C, et al. Br J Pharmacol, 2001, 132(7), 1574-1580.
Galici R, et al. Behav Pharmacol, 2008, 19(2), 153-159.
Galici R, et al. FASEB J, 2009, 23, Meeting Abstract Supplement, 586.6.
Wesołowska A, et al. Neuropharmacology. 2006 Sep;51(3):578-86.