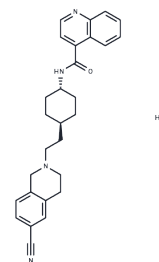


SB-277011 hydrochloride

Chemical Properties

CAS No. :	215804-67-4
Formula:	C ₂₈ H ₃₁ ClN ₄ O
Molecular Weight:	475.03
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	SB-277011 hydrochloride (SB-277011A hydrochloride) is a potent, selective, and orally active dopamine D3 receptor (D3R) antagonist that crosses the blood-brain barrier, with Ki values of 10.7 nM for rodent D3R and 11.2 nM for human D3R. It is 80-100 times more selective for D3 receptors than other dopamine receptors, acting on D3 receptors (pKi: 8.0), D2 receptors (pKi: 6.0), 5-HT1B receptors (pKi < 5.2), and 5-HT1D receptors (pKi: 5.9).
Targets(IC50)	5-HT Receptor, Dopamine Receptor
In vivo	SB 2770119 inhibited the development of haloperidol-induced catalepsy in a dose-dependent manner over a dose range of 13.5-30 mg/kg p.o. [2] SB-277011 (1-12 mg/kg, ip) dose-dependently reduces nicotine-enhanced BSR, nicotine-induced conditioned LMA, and nicotine-induced CPP. [3]

Solubility Information

Solubility	H ₂ O: 10 mg/mL (21.05 mM), Sonication is recommended. DMSO: 40 mg/mL (84.21 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 (4.21 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1051 mL	10.5257 mL	21.0513 mL
5 mM	0.421 mL	2.1051 mL	4.2103 mL
10 mM	0.2105 mL	1.0526 mL	2.1051 mL
50 mM	0.0421 mL	0.2105 mL	0.421 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

Clément P, et al. Delay of ejaculation induced by SB-277011, a selective dopamine D3 receptor antagonist, in the rat. *J Sex Med.* 2009 Apr;6(4):980-988.

Gyertyán I, et al. The selective dopamine D3 receptor antagonists, SB 277011-A and S 33084 block haloperidol-induced catalepsy in rats. *Eur J Pharmacol.* 2007 Oct 31;572(2-3):171-4.

Pak AC, et al. The selective dopamine D3 receptor antagonist SB-277011A reduces nicotine-enhanced brain reward and nicotine-paired environmental cue functions. *Int J Neuropsychopharmacol.* 2006 Oct;9(5):585-602.

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