

# SB-269970 (hydrochloride)

## **Catalog No: tcsc1644**

Available Sizes

Size: 10mg

Size: 50mg

**Specifications** 

**CAS No:** 261901-57-9

Formula:

 $\mathsf{C}_{18}\mathsf{H}_{29}\mathsf{CIN}_2\mathsf{O}_3\mathsf{S}$ 

**Pathway:** Neuronal Signaling;GPCR/G Protein

#### **Target:**

5-HT Receptor;5-HT Receptor

#### **Purity / Grade:**

>98%

#### **Alternative Names:**

SB-269970A

**Observed Molecular Weight:** 

388.95

### **Product Description**

SB269970 hydrochloride is a hydrochloride salt form of SB-269970, which is a 5-HT7 receptor antagonist with pKi of 8.3, exhibits >50-fold selectivity against other receptors.

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IC50 Value: 8.3 (pKi for 5-HT7) [1]

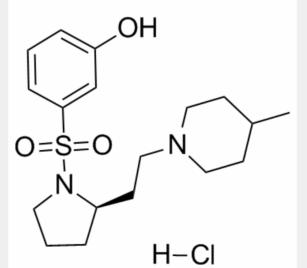
#### Target: 5-HT7 receptor

in vitro: 5-CT-stimulated adenylyl cyclase activity in guinea-pig hippocampal membranes (pEC(50) of 8.4+/-0.2) was inhibited by SB-269970-A (0.3 microM) with a pK(B) (8.3+/-0.1) in good agreement with its antagonist potency at the human cloned 5-HT(7(a)) receptor and its binding affinity at guinea-pig cortical membranes. 5-HT(7) receptor mRNA was highly expressed in human hypothalamus, amygdala, thalamus, hippocampus and testis [1]. Cortical slices were loaded with [(3)H]-5-HT and release was evoked by electrical stimulation. 5-CT inhibited the evoked release of [(3)H]-5-HT in a concentration-dependent manner. SB-269970 had no significant effect on [(3)H]-5-HT release while the 5-HT(1B) receptor antagonist, SB-224289 significantly potentiated [(3)H]-5-HT release. In addition, SB-269970 was unable to attenuate the 5-CT-induced inhibition of release while SB-224289 produced a rightward shift of the 5-CT response, generating estimated pK(B) values of 7.8 and 7.6 at the guinea-pig and rat terminal 5-HT autoreceptors respectively [2].

in vivo: Acute administration of SB-269970 (1 mg/kg) or amisulpride (3 mg/kg) ameliorated ketamine-induced cognitive inflexibility and novel object recognition deficit in rats. Both compounds were also effective in attenuating ketamine-evoked disruption of social interactions [3]. Pretreatment with a dose of SB-269970 (0.5 mM) that significantly affects sleep variables antagonized the LP-44 (2.5 mM)-induced suppression of REMS and of the number of REM periods [4].

Toxicity: N/A

Clinical trial: N/A





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