

SB-269970 (hydrochloride)

Catalog No: tcsc1644



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

261901-57-9

Formula:

$C_{18}H_{29}ClN_2O_3S$

Pathway:

Neuronal Signaling;GPCR/G Protein

Target:

5-HT Receptor;5-HT Receptor

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 30 mg/mL (77.13 mM)

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.

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

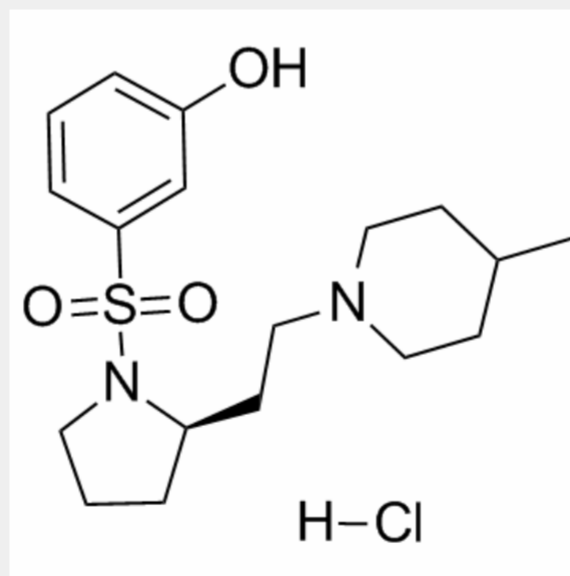
Target: 5-HT7 receptor

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



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!