

# SB-269970

Catalog No: tcsc1645



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

201038-74-6

**Formula:**

$C_{18}H_{28}N_2O_3S$

**Pathway:**

Neuronal Signaling;GPCR/G Protein

**Target:**

5-HT Receptor;5-HT Receptor

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Observed Molecular Weight:**

352.49

## Product Description

SB269970 is a 5-HT<sub>7</sub> receptor antagonist with pK<sub>i</sub> of 8.3, exhibits >50-fold selectivity against other receptors.

IC<sub>50</sub> Value: 8.3 (pK<sub>i</sub> for 5-HT<sub>7</sub>) [1]

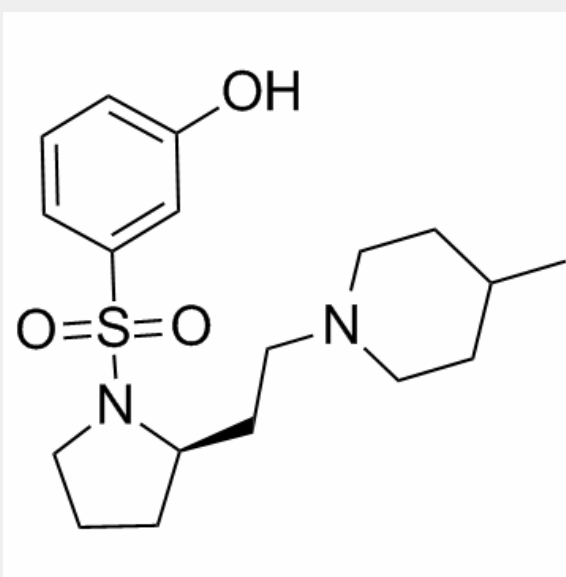
Target: 5-HT<sub>7</sub> receptor

in vitro: 5-CT-stimulated adenylyl cyclase activity in guinea-pig hippocampal membranes ( $pEC_{50}$  of  $8.4 \pm 0.2$ ) was inhibited by SB-269970-A (0.3  $\mu M$ ) with a  $pK(B)$  ( $8.3 \pm 0.1$ ) 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!