

Talnetant (hydrochloride)

Catalog No: tcsc1639



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

204519-66-4

Formula:

$C_{25}H_{23}ClN_2O_2$

Pathway:

Neuronal Signaling;GPCR/G Protein

Target:

Neurokinin Receptor;Neurokinin Receptor

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

SB 223412 hydrochloride;SB 223412-A

Observed Molecular Weight:

418.92

Product Description

Talnetant Hcl(SB 223412 Hcl) is a potent and selective NK3 receptor antagonist($k_i=1.4$ nM, hNK-3-CHO); 100-fold selective for the hNK-3 versus hNK-2 receptor, with no affinity for the hNK-1 at concentrations up to 100 μ M.

IC50 Value: 1.4 nM (hNK-3-CHO binding Ki) [1]

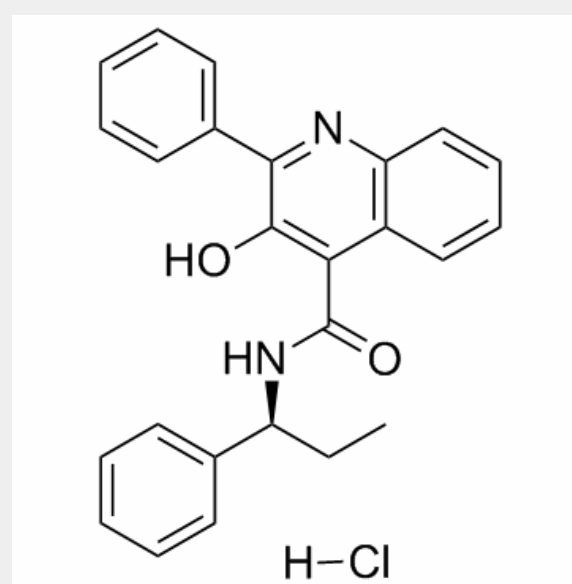
Target: NK3 receptor

in vitro: In vitro studies demonstrated that 53 is a potent functional antagonist of the hNK-3 receptor (reversal of senktide-induced contractions in rabbit isolated iris sphincter muscles and reversal of NKB-induced Ca²⁺ mobilization in CHO cells stably expressing the hNK-3 receptor), while in vivo this compound showed oral and intravenous activity in NK-3 receptor-driven models (senktide-induced behavioral responses in mice and senktide-induced miosis in rabbits) [1]. Talnetant has high affinity for recombinant human NK3 receptors (pKi 8.7) and demonstrates selectivity over other neurokinin receptors (pKi NK2 = 6.6 and NK1

in vivo: Rectal barostat tests were performed on 102 healthy volunteers, randomized to receive either oral talnetant 25 or 100 mg or placebo over 14-17 days [2]. Talnetant (3-30 mg/kg i.p.) significantly attenuated senktide-induced 'wet dog shake' behaviors in the guinea pig in a dose-dependent manner. Microdialysis studies demonstrated that acute administration of talnetant (30 mg/kg i.p.) produced significant increases in extracellular dopamine and norepinephrine in the medial prefrontal cortex and attenuated haloperidol-induced increases in nucleus accumbens dopamine levels in the freely moving guinea pigs [3].

Toxicity: Talnetant had no effect on rectal compliance, sensory thresholds or intensity ratings compared with placebo [2].

Clinical trial: Study Of Talnetant Versus Placebo And Risperidone In Schizophrenia. Phase 2



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