

Tropisetron (Hydrochloride)

Catalog No: tcsc0753



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

105826-92-4

Formula:

$C_{17}H_{21}ClN_2O_2$

Pathway:

Neuronal Signaling;GPCR/G Protein

Target:

5-HT Receptor;5-HT Receptor

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

SDZ-ICS 930

Observed Molecular Weight:

320.81

Product Description

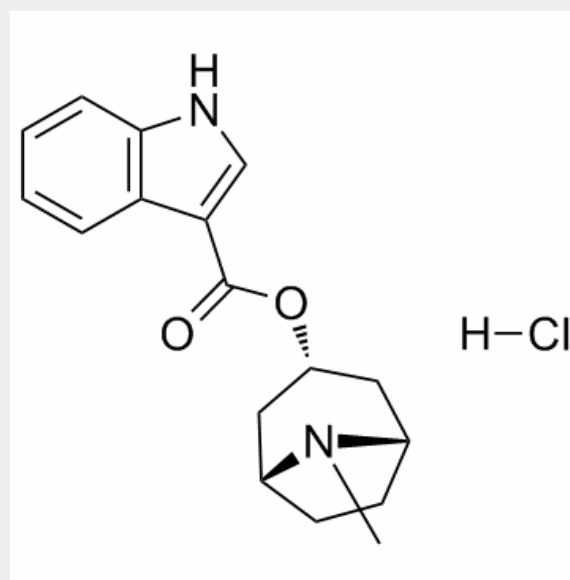
Tropisetron is a selective 5-HT₃ receptor antagonist and α 7-nicotinic receptor agonist with an IC₅₀ of 70.1 \pm 0.9 nM for 5-HT₃ receptor.

IC₅₀ value: 70.1 \pm 0.9 nM

Target: 5-HT₃ receptor; α 7-nicotinic receptor

in vitro: Retinal ganglion cells(RGCs) pretreated with 100 nM tropisetron before glutamate increased cell survival to an average of 105% compared to controls. Inhibition studies using the α 7 nAChR antagonist, MLA (10 nM), support the hypothesis that tropisetron is an effective neuroprotective agent against glutamate-induced excitotoxicity; mediated by α 7 nAChR activation. Tropisetron had no discernible effects on pAkt levels but significantly decreased p38 MAPK levels associated with excitotoxicity from an average of 15 ng/ml to 6 ng/ml [2]. Tropisetron, but not granisetron, significantly inhibits the phosphatase activity of calcineurin, over-expresses the CB(1) receptors at both transcriptional and protein levels, and reduces cAMP content in cerebellar granule neurons (CGNs) [4].

in vivo: Animals were treated intracerebroventricularly with tropisetron, mCPBG (selective 5-HT₃ receptor agonist) or mCPBG plus tropisetron on days 1, 3, 5 and 7. Tropisetron significantly diminished the elevated levels of these markers and reversed the cognitive deficit. Interestingly, tropisetron was also found to be a potent inhibitor of calcineurin phosphatase activity [1]. tropisetron (5mg/kg/day) plus mCPBG (10mg/kg/day), and granisetron (5mg/kg/day) intraperitoneally on days 3-35 post-immunization. Treatment with tropisetron and granisetron markedly suppressed the clinical symptoms of EAE (p



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