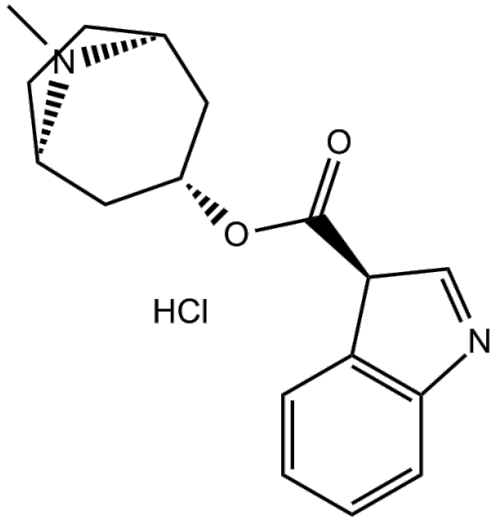
Product Data Sheet

Product Name: Tropisetron
Cat. No.: GC16284

Chemical Properties

Cas. No.	105826-92-4		
Chemical Name	[(1R,5S)-8-methyl-8-azabicyclo[3.2.1]octan-3-yl] 1H-indole-3-carboxylate		
SMILES	CN1C2CCC1CC(C2)OC(=O)C3=CNC4=CC=CC=C43		
Formula	C17H20N2O2	M.Wt	284.35
Solubility	≥ 28.4mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Tropisetron (SDZ-ICS-930 free base) is a selective 5-HT3 receptor antagonist and α7-nicotinic receptor agonist with an IC50 of 70.1 ± 0.9 nM for 5-HT3 receptor. IC50 value: 70.1 ± 0.9 nM [1]Target: 5-HT3 receptorin vitro: Tropisetron specifically inhibited both IL-2 gene transcription and IL-2 synthesis in stimulated T cells. tropisetron inhibited both the binding to DNA and the transcriptional

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activity of NFAT and AP-1. We also observed that tropisetron is a potent inhibitor of PMA plus ionomycin-induced NF-(kappa)B activation but in contrast TNF(alpha)-mediated NF-(kappa)B activation was not affected by this antagonist [2]. Tropisetron prevents the phosphorylation and thus activation of the p38 MAPK, which is involved in post-transcriptional regulation of various cytokines [3].in vivo: Two different doses of tropisetron (5 and 10 mg/kg) or vehicle were administered intraperitoneally 30 min before pMCAO. Neurological deficit scores, mortality rate and infarct volume were determined 24 h after permanent focal cerebral ischemia [4].

References:

[1]. Macor JE, et al. The 5-HT3 antagonist tropisetron (ICS 205-930) is a potent and selective alpha7 nicotinic receptor partial agonist. Bioorg Med Chem Lett. 2001 Feb 12;11(3):319-21.
[2]. Vega Lde L, et al. The 5-HT3 receptor antagonist tropisetron inhibits T cell activation by targeting the calcineurin pathway. Biochem Pharmacol. 2005 Aug 1;70(3):369-80.
[3]. Stratz C, et al. The anti-inflammatory effects of the 5-HT receptor antagonist tropisetron are mediated by the inhibition of p38 MAPK activation in primary human monocytes. Int Immunopharmacol. 2012 Aug;13(4):398-402.
[4]. Candelario-Jalil E, et al. Detrimental effects of tropisetron on permanent ischemic stroke in the rat. BMC Neurosci. 2008 Feb 6;9:19.

Caution: Product has not been fully validated for medical applications. For research use only.
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