

Tropisetron

Chemical Properties

CAS No.:	89565-68-4
Formula:	C ₁₇ H ₂₀ N ₂ O ₂
Molecular Weight:	284.35
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Tropisetron is a $\alpha 7$ -nicotinic receptor agonist and 5-HT ₃ receptor antagonist with an IC ₅₀ of 70.1 \pm 0.9 nM for 5-HT ₃ receptor.
Targets(IC ₅₀)	5-HT ₃ receptor: 5.3 nM(Ki) $\alpha 7$ nAChR: 6.9 nM(Ki)
In vitro	Tropisetron inhibits IL-2 production and antigen-induced proliferation in human peripheral T cells. Tropisetron inhibits the signalling pathways that regulate the activation of the transcription factors AP-1, NFAT, and NF- κ B, which are known to play a critical role in the immune response[2]
In vivo	Tropisetron could ameliorate the ischemic brain injury via decreasing TNF- α level and myeloperoxidase activity. Tropisetron elicits anti-inflammatory effects in experimental model of cisplatin-induced nephrotoxicity, these effects were completely independent of 5-HT ₃ -receptor [3].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.517 mL	17.584 mL	35.168 mL
5 mM	0.703 mL	3.517 mL	7.034 mL
10 mM	0.352 mL	1.758 mL	3.517 mL
50 mM	0.07 mL	0.352 mL	0.703 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Macor JE, et al. Bioorg Med Chem Lett. 2001, 11(3):319-21.
2. Vega Lde L, et al. Biochem Pharmacol. 2005, 70(3):369-80.
3. Zirak MR, et al. Eur J Pharmacol. 2014, 738:222-9.

Inhibitors · Natural Compounds · Compound Libraries

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