
Product Data Sheet

Product Name: Alosetron (Hydrochloride(1:X))

Cat. No.: GC35302

Chemical Properties

Cas. No. 132414-02-9

SMILES O=C1N(CC2=C(NC=N2)C)CCC(N3C)=C1C4=C3C=CC=C4.[F,Cl,Br,I][ClH]Formula $C_{17}H_{18}N_4O \cdot xHCl$ M.Wt

Solubility Soluble 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 [Alosetron \(Hydrochloride\(1:X\)\)](#)

Background

Alosetron is an antagonist of the serotonin (5-HT) receptor subtype 5-HT₃ (K_i s = 0.3 and 0.4 nM for the rat cortical and human recombinant receptors, respectively).¹ It is selective for 5-HT₃ over 5-HT₂ and 5-HT_{1A} receptors (K_i s = 6.3 and >100 ?M, respectively), as well as α_1 -, β_1 -, and β_2 - adrenergic, M₁, M₂, and M₃ muscarinic, GABA_A, dopamine D₂, and nicotinic receptors at 10 μ M.² Alosetron (0.3-10 nM) inhibits 5-HT-induced depolarization of isolated rat vagus nerve.¹ It reduces wrap restraint stress-induced defecation and the number of abdominal muscle contractions in a rat model of irritable bowel syndrome with diarrhea (IBS-D) when administered at a dose of 0.1 mg/kg.³ Formulations containing alosetron have been used in the treatment of diarrhea-predominant irritable bowel syndrome in women.

1.Humphrey, P.P., Bountra, C., Clayton, N., et al.Review article: the therapeutic potential of 5-HT₃ receptor antagonists in the treatment of irritable bowel syndromeAilment Pharmacol. Ther.13(Suppl 2)31-38(1999) 2.Kilpatrick, G.J., Hagan, R.M., Butler, A., et al.GR68755, a potent and selective antagonist of 5-HT₃ receptorsGlaxo Grp. Res.

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

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Ltd.259P(1991) 3.Taquichi, R., Shilkata, K., Furuya, Y., et al.Selective corticotropin-releasing factor 1 receptor antagonist E2508 reduces restraint stress-induced defecation and visceral pain in rat modelsPsychoneuroendocrinology75110-115(2017)

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