

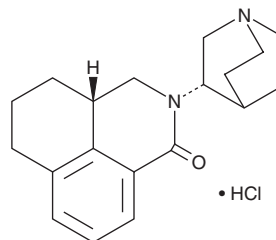
PRODUCT INFORMATION



Palonosetron (hydrochloride)

Item No. 16752

CAS Registry No.: 135729-62-3
Formal Name: 2-[(3S)-1-azabicyclo[2.2.2]oct-3-yl]-2,3,3a,4,5,6-hexahydro-1H-benz[de]isoquinolin-1-one, monohydrochloride
Synonym: RS 25259-197
MF: C₁₉H₂₄N₂O • HCl
FW: 332.9
Purity: ≥98%
UV/Vis.: λ_{max}: 210, 239 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Palonosetron (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the palonosetron (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Palonosetron (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of palonosetron (hydrochloride) in these solvents is approximately 0.5, 20, and 10 mg/ml, respectively.

Palonosetron (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, palonosetron (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Palonosetron (hydrochloride) has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Palonosetron is an antagonist of the serotonin (5-HT) receptor subtype 5-HT₃ (K_i = 0.04 nM).¹ It is selective for 5-HT₃ over 5-HT_{1A}, 5-HT_{1D}, 5-HT_{2A}, and 5-HT_{2C} receptors (K_is = ≥15.85 μM for all), as well as a panel of additional neurotransmitter receptors. Palonosetron inhibits 5-HT-induced contraction in isolated guinea pig ileum. It inhibits cisplatin-induced emesis in ferrets (ID₅₀ = 1.1 μg/kg, i.v.) as well as emesis induced by cisplatin (Item No. 13119), dacarbazine (Item No. 21877), actinomycin D (Item No. 11421), and mechlorothamine in dogs (ID₅₀s = 1.9, 4.1, 4.9, and 4.4 μg/kg, respectively).² Formulations containing palonosetron have been used in the treatment of postoperative or chemotherapy-induced nausea and vomiting.

References

1. Wong, E.H., Clark, R., Leung, E., *et al.* The interaction of RS 25259-197, a potent and selective antagonist, with 5-HT₃ receptors, *in vitro*. *Br. J. Pharmacol.* **114**(4), 851-859 (1995).
2. Eglen, R.M., Lee, C.H., Smith, W.L., *et al.* Pharmacological characterization of RS 25259-197, a novel and selective 5-HT₃ receptor antagonist, *in vivo*. *br. J. Pharmacol.* **114**(4), 860-866 (1995).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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