

Product Name: Palonosetron hydrochloride

Catalog No.: 7038

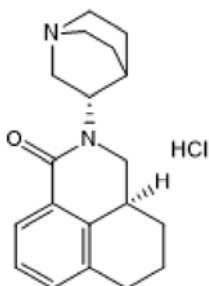
Batch No.: 1

CAS Number: 135729-62-3

IUPAC Name: (3a*S*)-2-[(3*S*)-1-azabicyclo[2.2.2]oct-3-yl]-2,3,3a,4,5,6-hexahydro-1*H*-benz[*de*]isoquinolin-1-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₅ClN₂O
Batch Molecular Weight: 332.87
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -99 (Concentration = 0.4, Solvent = Water)
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	68.56	7.57	8.42
Found	68.33	7.62	8.46

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Highly potent and high affinity 5-HT₃ antagonist (IC₅₀ = 0.24 nM for 5-HT_{3A}; pK_i = 10.4). Displays a slow dissociation rate. Inhibits 5-HT-induced enhancement of cellular response to substance P (Cat. No. 1156) *in vitro*. Inhibits cisplatin (Cat. No. 2251)-induced enhancement of substance P response *in vivo*.

Physical and Chemical Properties:

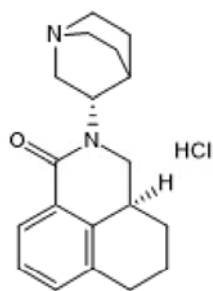
Batch Molecular Formula: C₁₉H₂₅ClN₂O

Batch Molecular Weight: 332.87

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Del Cadia et al (2013) Exploring a potential palonosetron allosteric binding site in the 5-HT₃ receptor. *Bioorg.Med.Chem.* **21** 7523. PMID: 24128813.

Lummis & Thompson (2013) Agonists and antagonists induce different palonosetron dissociation rates in 5-HT_{3A} and 5-HT_{3AB} receptors. *Neuropharmacology.* **73** 241. PMID: 23747573.

Rojas et al (2010) The antiemetic 5-HT₃ receptor antagonist Palonosetron inhibits substance P-mediated responses *in vitro* and *in vivo*. *J.Pharmacol.Exp.Ther.* **335** 362. PMID: 20724484.

Wong et al (1995) The interaction of RS 25259-197, a potent and selective antagonist, with 5-HT₃ receptors, *in vitro*. *Br.J.Pharmacol.* **114** 851. PMID: 7773546.

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM

DMSO to 10 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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