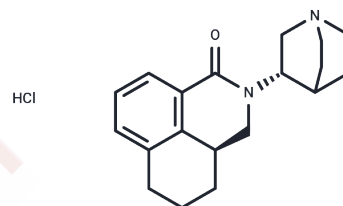


Palonosetron hydrochloride

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 135729-62-3 |
| Formula: | C ₁₉ H ₂₄ N ₂ O·HCl |
| Molecular Weight: | 332.87 |
| Appearance: | no data available |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year |



Biological Description

| | |
|----------------------------|---|
| Description | Palonosetron hydrochloride (RS 25259) is a 5-HT ₃ antagonist used in the prevention and treatment of chemotherapy-induced nausea and vomiting. |
| Targets(IC ₅₀) | 5-HT Receptor |
| In vivo | Palonosetron exhibits a longer plasma half-life of approximately 40 hours compared to other antagonists in its class (ondansetron, 4 hours; tropisetron, 7.3 hours; dolasetron, 7.5 hours; ranisetron, 8.9 hours). Additionally, it demonstrates a hundredfold greater binding affinity to the 5-HT ₃ receptor, with a pK _i of 10.5, which is significantly higher than that of granisetron (pK _i 8.91), tropisetron (pK _i 8.81), ondansetron (pK _i 8.39), and dolasetron (pK _i 7.6). |

Solubility Information

| | |
|------------|---|
| Solubility | H ₂ O: 100 mg/mL (300.42 mM), Sonication is recommended. DMSO: 3.33 mg/mL (10.00 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 3.0042 mL | 15.0209 mL | 30.0418 mL |
| 5 mM | 0.6008 mL | 3.0042 mL | 6.0084 mL |
| 10 mM | 0.3004 mL | 1.5021 mL | 3.0042 mL |
| 50 mM | 0.0601 mL | 0.3004 mL | 0.6008 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

- Wong EH, et al. Br J Pharmacol, 1995, 114(4), 851-859.
Gralla R, et al. Ann Oncol, 2003, 14(10), 1570-1577.

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