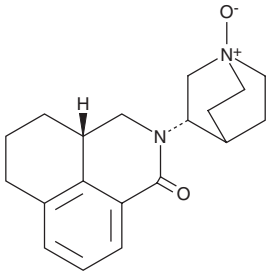
PRODUCT INFORMATION

Palonosetron N-oxide

Item No. 34212

CAS Registry No.:	813425-83-1
Formal Name:	(3aS)-2,3,3a,4,5,6-hexahydro-2-[(3S)-1-oxido-1-azabicyclo[2.2.2]oct-3-yl]-1H-benz[de]isoquinolin-1-one
MF:	$C_{19}H_{24}N_2O_2$
FW:	312.4
Purity:	≥95%
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 N-oxide is supplied as a crystalline solid. A stock solution may be made by dissolving the palonosetron N-oxide in the solvent of choice, which should be purged with an inert gas. Palonosetron N-oxide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of palonosetron N-oxide in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Palonosetron N-oxide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, palonosetron N-oxide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Palonosetron N-oxide 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 N-oxide is a metabolite of the serotonin (5-HT) receptor subtype 5-HT_3 antagonist palonosetron (Item No. 16752).[1] It is also a potential impurity in palonosetron preparations.[2] Palonosetron N-oxide is a degradation product formed by exposure to oxidative stress.

References

1. Stoltz, R.A., Cyong, J.-C., Shah, A., *et al.* Pharmacokinetic and safety evaluation of palonosetron, a 5-hydroxytryptamine-3 receptor antagonist, in U.S. and Japanese healthy subjects. *J. Clin. Pharmacol.* **44(5)**, 520-531 (2004).
2. Vishnu Murthy, M., Srinivas, K., Kumar, R., *et al.* Development and validation of a stability-indicating LC method for determining palonosetron hydrochloride, its related compounds and degradation products using naphthalethyl stationary phase. *J. Pharm. Biomed. Anal.* **56(2)**, 429-435 (2011).

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