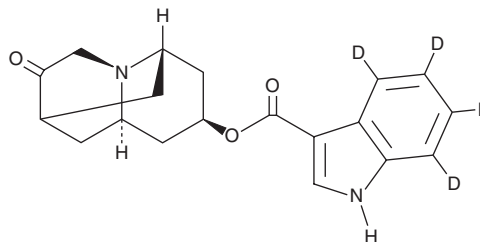


PRODUCT INFORMATION



Dolasetron-d₄ Item No. 33294

Formal Name: 1H-indole-3-carboxylic acid-4,5,6,7-d₄, octahydro-3-oxo-2,6-methano-2H-quinolizin-8-yl ester, stereoisomer
MF: C₁₉H₁₆D₄N₂O₃
FW: 328.4
Chemical Purity: ≥95% (Dolasetron)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Dolasetron-d₄ is intended for use as an internal standard for the quantification of dolasetron (Item No. 22234) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Dolasetron-d₄ is supplied as a solid. A stock solution may be made by dissolving the dolasetron-d₄ in the solvent of choice, which should be purged with an inert gas. Dolasetron-d₄ is soluble in organic solvents such as methanol, DMSO, acetone, and acetonitrile.

Description

Dolasetron is an antagonist of the serotonin (5-HT) receptor subtype 5-HT₃ (K_i = 20 nM).¹ It is selective for 5-HT₃ receptors over 5-HT_{1A}, 5-HT_{1B}, 5-HT₂, dopamine D₂, α₁-, α₂-, and β-adrenergic, M₁₋₅ muscarinic acetylcholine, and neurokinin-1 (NK₁) receptors (IC₅₀s = >10 μM for all).² Dolasetron inhibits 5-HT-induced membrane currents in NG 108-15 cells (IC₅₀ = 3.8 nM).¹ It increases the latency to emesis and reduces the number of vomiting and retching episodes induced by cisplatin (Item No. 13119) in ferrets when administered at doses of 0.5 or 2 mg/kg.² Formulations containing dolasetron have been used in the prevention of postoperative or chemotherapy-induced nausea.

References

1. Beojjinga, P.H., Galvan, M., Baron, B.M., *et al.* Characterization of the novel 5-HT₃ antagonists MDL 73147EF (dolasetron mesilate) and MDL 74156 in NG108-15 neuroblastoma x glioma cells. *Eur. J. Pharmacol.* **219(1)**, 9-13 (1992).
2. Miller, R.C., Galvan, M., Gittos, M.W., *et al.* Pharmacological properties of dolasetron, a potent and selective antagonist at 5-HT₃ receptors. *Drug Develop. Res.* **28(1)**, 87-93 (1993).

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.

WARRANTY AND LIMITATION OF REMEDY

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