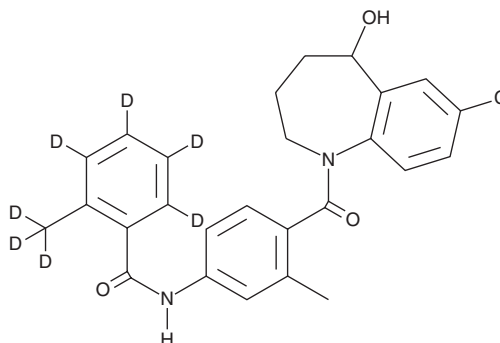


PRODUCT INFORMATION



Tolvaptan-d₇ Item No. 26453

CAS Registry No.: 1246818-18-7
Formal Name: N-[4-[(7-chloro-2,3,4,5-tetrahydro-5-hydroxy-1H-1-benzazepin-1-yl)carbonyl]-3-methylphenyl]-6-(methyl-d₃)-benzamide-2,3,4,5-d₄
MF: C₂₆H₁₈ClD₇N₂O₃
FW: 456.0
Chemical Purity: ≥98% (Tolvaptan)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₇); ≤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

Tolvaptan-d₇ is intended for use as an internal standard for the quantification of tolvaptan (Item No. 19691) 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).

Tolvaptan-d₇ is supplied as a solid. A stock solution may be made by dissolving the tolvaptan-d₇ in the solvent of choice, which should be purged with an inert gas. Tolvaptan-d₇ is slightly soluble in DMSO and methanol.

Description

Tolvaptan is a nonpeptide vasopressin V₂ receptor antagonist (IC₅₀ = 3 nM for rat receptor) and a diuretic agent.¹ It is selective for V₂ over V₁ receptors (IC₅₀ = 0.58 μM). Tolvaptan increases urine volume by 3-fold in rats when administered at a dose of 0.54 mg/kg. It also reduces left ventricular end-systolic volumes and improves left ventricular ejection fraction in a rat model of myocardial infarction.² Formulations containing tolvaptan have been used to treat hyponatremia.

References

1. Kondo, K., Ogawa, H., Yamashita, H., *et al.* 7-Chloro-5-hydroxy-1-[2-methyl-4-(2-methylbenzoyl-amino)benzoyl]-2,3,4,5-tetrahydro-1H-1-benzazepine (OPC-41061): A potent, orally active nonpeptide arginine vasopressin V₂ receptor antagonist. *Bioorg. Med. Chem.* **7**(8), 1743-1754 (1999).
2. Yamazaki, T., Nakamura, Y., Shiota, M., *et al.* Tolvaptan attenuates left ventricular fibrosis after acute myocardial infarction in rats. *J. Pharmacol. Sci.* **123**(1), 58-66 (2013).

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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