

Product Data Sheet

Product Name: Tolvaptan-d7

Cat. No.: GC48186

Chemical Properties

Cas. No. 1246818-18-7

SMILES O=C(NC1=CC(C)=C(C(N2C(G=CC(Cl)=C3)=C3C(O)CCC2)=O)C=C1)C4=C(C([2H])([2H])[2H])C([2H])=C([2H])C([2H])=C4[2H]

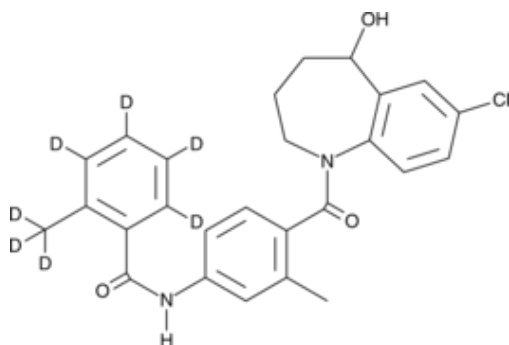
Formula C₂₆H₁₈ClD₇N₂O₃ M.Wt 456

Solubility DMSO: slightly soluble, Methanol: slightly soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Tolvaptan-d7 is intended for use as an internal standard for the quantification of tolvaptan by GC- or LC-MS. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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- 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 antagonistBioorg. 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 ratsJ. Pharmacol. Sci.123(1)58-66(2013)

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