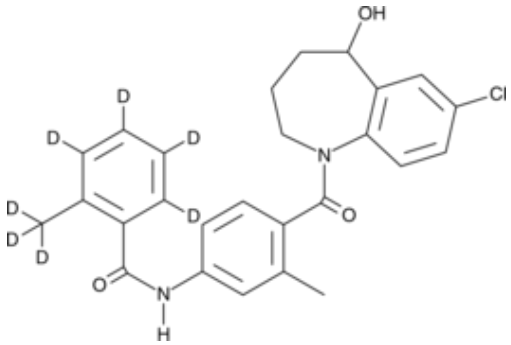
Product Data Sheet

Product Name: Tolvaptan-d7
Cat. No.: GC48186

Chemical Properties

Cas. No.	1246818-18-7		
SMILES	O=C(NC1=CC(C)=C(C(N2C(C=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-d_7 is intended for use as an internal standard for the quantification of tolvaptan by GC- or LC-MS. Tolvaptan is a nonpeptide vasopressin V_2 receptor antagonist (IC_{50} = 3 nM for rat receptor) and a diuretic agent.[1] It is selective for V_2 over V_1 receptors (IC_{50} = 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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