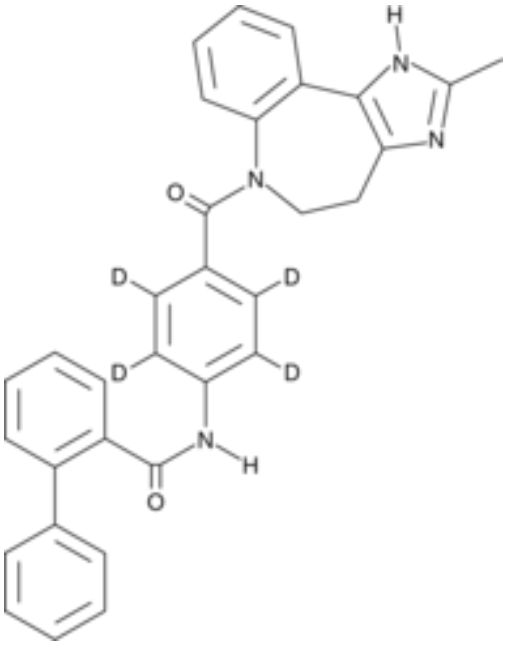
Product Data Sheet

Product Name: Conivaptan-d4
Cat. No.: GC47120

Chemical Properties

Cas. No.	1129433-63-1		
SMILES	O=C(NC1=C([2H])C([2H])=C(C(N2CCC(N=C(C)N3)=C3C4=C2C=CC=C4)=O)C([2H])=C1[2H])C(C=CC=C5)=C5C6=CC=CC=C6		
Formula	C32H22D4N4O2	M.Wt	502.6
Solubility	DMSO: 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

Conivaptan-d_4 is intended for use as an internal standard for the quantification of conivaptan by GC- or LC-MS. Conivaptan is an antagonist of the arginine vasopressin (AVP) receptors V_{1A} and V_2 (K_is

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= 0.48 and 3.04 nM for rat liver V_{1A} and kidney V_2, respectively).[1] It also competitively inhibits oxytocin binding to rat uterine oxytocin receptors (K_i = 44 nM) but has no effect on AVP binding to anterior pituitary V_{1B} receptors at concentrations up to 100 μM in a radioligand binding assay. Conivaptan suppresses AVP-induced increases in intracellular calcium in vascular smooth muscle cells (VSMCs) *in vitro* and the pressor response in pithed rats. Conivaptan (0.01-0.3 mg/kg, i.v.) increases urine output and decreases urine osmolality in dehydrated conscious rats in a dose-dependent manner. It also reduces brain edema and blood-brain barrier disruption in a mouse experimental stroke model.[2]

1.Tahara, A., Tomura, Y., Wada, K.-I., et al.Pharmacological profile of YM087, a novel potent nonpeptide vasopressin V1A and V2 receptor antagonist, in vitro and in vivoJ. Pharmacol. Exp. Ther.282(1)301-308(1997) 2.Zeynalov, E., Jones, S.M., Seo, J.W., et al.Arginine-vasopressin receptor blocker conivaptan reduces brain edema and blood-brain barrier disruption after experimental stroke in micePLoS One10(8)e0136121(2015)

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