

Product Data Sheet

Product Name: Darifenacin-d4

Cat. No.: GC48527

Chemical Properties

Cas. No. 1189701-43-6

SMILES NC(C(C1=CC=CC=C1)(C2=CC=CC=C2)C3CN(C([2H])([2H])C([2H])([2H])C4=CC=C(OCC5)C5=C4)CC3)=O

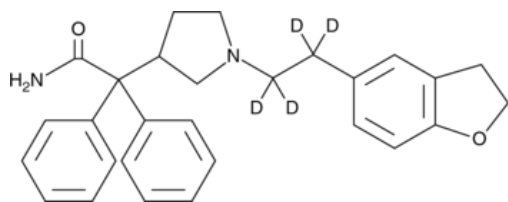
Formula C₂₈H₂₆D₄N₂O₂ M.Wt 430.6

Solubility Acetonitrile: soluble, DMSO: soluble Storage -20°C

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

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

Structure



Background

Darifenacin-d₄ is intended for use as an internal standard for the quantification of darifenacin by GC- or LC-MS. Darifenacin is an antagonist of M₃ muscarinic acetylcholine receptors (mAChRs; K_i = 0.76 nM).¹ It is selective for M₃ over M₁, M₂, M₄, and M₅ mAChRs (K_is = 7.08, 44.67, 45.71, and 9.33 nM, respectively). Darifenacin selectively inhibits contractions in isolated guinea pig ileum, bladder, and trachea (pA₂s = 9.44, 8.66, and 8.7, respectively), tissues that endogenously express high levels of M₃ mAChRs, over isolated rabbit vas deferens and isolated guinea pig atria (pA₂s = 7.9 and 7.48, respectively), which endogenously express M₁ and M₂ mAChRs, respectively. It inhibits micturition pressure (ED₅₀ = 0.089 mg/kg, i.v.), as well as micturition interval and volume in rats. Formulations containing darifenacin have been used in the treatment of overactive bladder.

1. Wallis, R.M., and Napier, C.M. Muscarinic antagonists in development for disorders of smooth

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

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muscle functionLife Sci.64(6-7)395-401(1999)

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