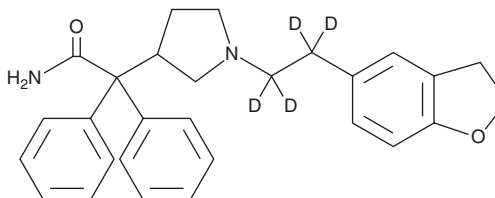


PRODUCT INFORMATION



Darifenacin-d₄ Item No. 33701

CAS Registry No.: 1189701-43-6
Formal Name: 1-[2-(2,3-dihydro-5-benzofuranyl)ethyl-1,1,2,2-d₄]- α,α -diphenyl-3-pyrrolidineacetamide
MF: C₂₈H₂₆D₄N₂O₂
FW: 430.6
Chemical Purity: $\geq 95\%$ (Darifenacin) (mixture of isomers)
Deuterium Incorporation: $\geq 99\%$ deuterated forms (d₁-d₄); $\leq 1\%$ 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

Darifenacin-d₄ is intended for use as an internal standard for the quantification of darifenacin (Item No. 14424) 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).

Darifenacin-d₄ is supplied as a solid. A stock solution may be made by dissolving the darifenacin-d₄ in the solvent of choice, which should be purged with an inert gas. Darifenacin-d₄ is soluble in DMSO and acetonitrile.

Description

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.

Reference

1. Wallis, R.M. and Napier, C.M. Muscarinic antagonists in development for disorders of smooth muscle function. *Life Sci.* **64**(6-7), 395-401 (1999).

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
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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