

PRODUCT INFORMATION



Solifenacin-d₅ (succinate)

Item No. 34245

Formal Name: butanedioic acid, compd. with
(1S)-(3R)-1-azabicyclo[2.2.2]oct-3-yl
3,4-dihydro-1-(phenyl-2,3,4,5,6-d₅)-2(1H)-
isoquinolinecarboxylate

MF: C₂₃H₂₁D₅N₂O₂ • C₄H₆O₄

FW: 485.6

Chemical Purity: ≥95% (Solifenacin (succinate))

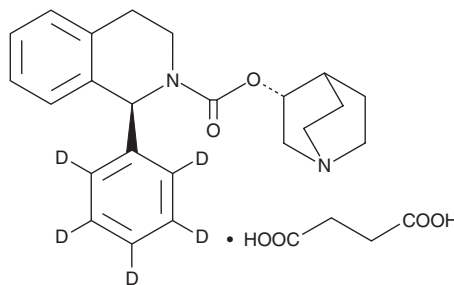
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₅); ≤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

Solifenacin-d₅ (succinate) is intended for use as an internal standard for the quantification of solifenacin (Item No. 17320) 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).

Solifenacin-d₅ (succinate) is supplied as a solid. A stock solution may be made by dissolving the solifenacin-d₅ (succinate) in the solvent of choice, which should be purged with an inert gas. Solifenacin-d₅ (succinate) is soluble in organic solvents such as methanol and DMSO.

Description

Solifenacin is a competitive antagonist of M₁, M₂, and M₃ muscarinic acetylcholine receptors (K_is = 25, 125, and 10 nM, respectively, for the human receptors).¹ It inhibits calcium mobilization induced by carbamoylcholine (carbachol; Item No. 14486) in isolated guinea pig detrusor muscle cells (K_i = 4 nM).² Solifenacin inhibits carbachol-induced contraction of isolated guinea pig urinary bladder smooth muscle. *In vivo*, solifenacin (0.03-1 mg/kg) inhibits carbachol-induced increases in urinary bladder pressure in anesthetized rats. Formulations containing solifenacin have been used in the treatment of overactive bladder.

References

1. Hegde, S.S. Muscarinic receptors in the bladder: From basic research to therapeutics. *Br. J. Pharmacol.* **147(2)**, S80-S87 (2006).
2. Ikeda, K., Koboyashi, S., Suzuki, M., *et al.* M₃ receptor antagonism by the novel antimuscarinic agent solifenacin in the urinary bladder and salivary gland. *Naunyn Schmiedebergs Arch. Pharmacol.* **366(2)**, 97-103 (2002).

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.

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