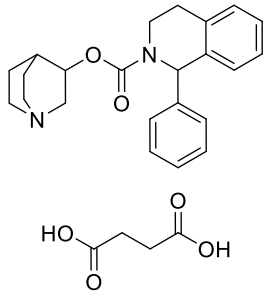
Product data sheet

MedKoo Cat#: 522451 Name: Solifenacin succinate CAS#: 242478-38-2 (succinate) Chemical Formula: $C_{27}H_{32}N_2O_6$ Molecular Weight: 480.56	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Solifenacin succinate is a competitive muscarinic receptor antagoinst used in treatment for an overactive bladder and reduces micturition, urgency, and incontinence. Solifenacin potently blocks signaling through M1, M2, and M3. Solifenacin prevents activation by acetylcholine, resulting in muscle relaxation.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	25	52.02
DMSO	25	52.02
Ethanol	5	10.40
Water	100	208.09

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.08 mL	10.40 mL	20.81 mL
5 mM	0.42 mL	2.08 mL	4.16 mL
10 mM	0.21 mL	1.04 mL	2.08 mL
50 mM	0.04 mL	0.21 mL	0.42 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

To be determined

In vivo study

1. Xu X, Song X, Chen F, Yan W, Meng Q, Liu J, Yao R, Liu Y, Dong F. Solifenacin promotes remyelination in cuprizone mouse model by inhibiting the Wnt/β-catenin signaling pathway. J Chem Neuroanat. 2023 Dec 18;136:102375. doi: 10.1016/j.jchemneu.2023.102375. Epub ahead of print. PMID: 38123002.
2. Imamura T, Ogawa T, Minagawa T, Nagai T, Suzuki T, Saito T, Yokoyama H, Nakazawa M, Ishizuka O. Combined treatment with a β3 -adrenergic receptor agonist and a muscarinic receptor antagonist inhibits detrusor overactivity induced by cold stress in spontaneously hypertensive rats. Neurourol Urodyn. 2017 Apr;36(4):1026-1033. doi: 10.1002/nau.23061. Epub 2016 Jul 1. PMID: 27367573.

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7. Bioactivity

Biological target:

Solifenacin is a competitive antagonist of M1, M2, and M3 muscarinic acetylcholine receptors (Kis = 25, 125, and 10 nM, respectively, for the human receptors).

In vitro activity

To be determined

In vivo activity

Solifenacin may be a potential therapeutic option for central nervous system demyelinating diseases. Solifenacin treatment significantly promoted myelin regeneration and oligodendrocyte precursor cells differentiation in a cuprizone-induced demyelination mouse model. Solifenacin treatment also inhibited the Wnt/β-catenin signaling pathway and reversed the effects of cuprizone on oligodendrocyte precursor cells differentiation.

Reference: J Chem Neuroanat. 2023 Dec 18;136:102375. https://pubmed.ncbi.nlm.nih.gov/38123002/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.