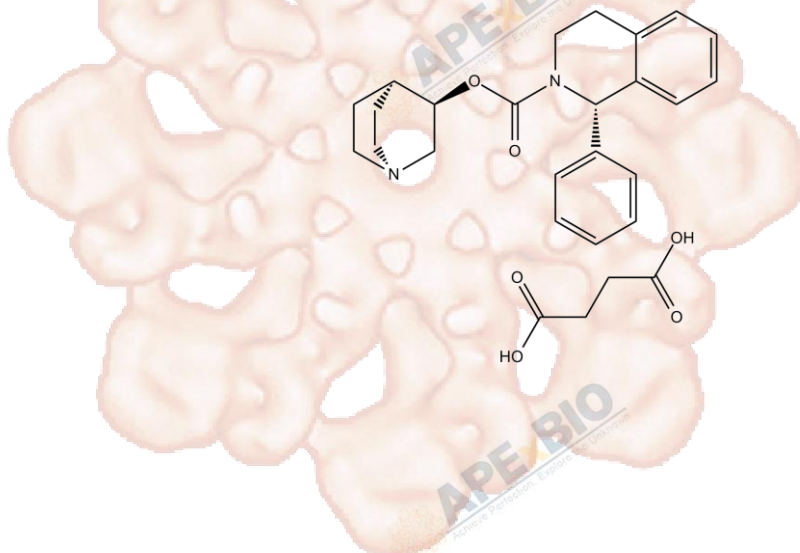


Product Data Sheet

Solifenacin succinate

Cat. No.:	B1614
CAS No.:	242478-38-2
Formula:	C ₂₇ H ₃₂ N ₂ O ₆
M.Wt:	480.55
Synonyms:	
Target:	Neuroscience
Pathway:	Muscarinic Receptor
Storage:	Store at -20°C



Solvent & Solubility

≥24.05 mg/mL in DMSO; ≥23.6 mg/mL in EtOH with ultrasonic; ≥53.6 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.0809 mL	10.4047 mL	20.8095 mL
	5 mM		0.4162 mL	2.0809 mL	4.1619 mL
	10 mM		0.2081 mL	1.0405 mL	2.0809 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Muscarinic receptor antagonist

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Bladder smooth muscle cells, CEM human leukemic T cells
Preparation method:	The solubility of this compound in DMSO is >24.1mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0.1 nM-1 μM

	Applications:	In bladder smooth muscle cells, solifenacin inhibited Ca ²⁺ mobilization induced by 10 µM carbachol in a concentration-dependent manner. In CEM human leukemic T cells, YM905 (10 nM to 10 µM) significantly reduced the number of cells responding to 10 µM Oxo-M. YM905 attenuated the upregulation of c-fos mRNA expression induced by 10 µM Oxo-M, though it had no effect on basal expression of c-fos mRNA at 1 or 10 µM.
In Vivo	Animal experiment	
	Animal models:	Female Wistar rats, Mice
	Dosage form:	Intravenous injection, 0.03-1 mg/kg
	Applications:	YM905 (0.03-1 mg/kg, i.v.) dose-dependently and significantly suppressed increases in intravesical pressure. YM905 (0.1 mg/kg, i.v.) had no effect on salivary secretion. YM905 (i.v.) showed more than about 50% inhibition at 0.3 mg/kg. YM905 showed significantly more potent inhibition of bladder responses over salivary responses, with ID ₃₀ and ID ₅₀ values indicating 6.5- and 3.7-fold greater selectivity for urinary bladder, respectively. YM905 potently inhibited restraint stress-induced fecal pellet output in fed rats (ED ₅₀ : 4.0 mg/kg) and diarrhea in fasted rats (ED ₅₀ : 1.7 mg/kg). YM905 inhibited 5-hydroxytryptamine (5-HT)-, prostaglandin E ₂ - and castor oil-induced secretory diarrhea in mice (ED ₅₀ : 5.5, 14 and 6.3 mg/kg, respectively), but showed no significant effect on cholera toxin-induced intestinal secretion in mice. YM905 (3, 10 mg/kg) reversed morphine-decreased postprandial defecation in ferrets, a model of spastic constipation.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Ohtake, A., Ukai, M., Hatanaka, T., Kobayashi, S., Ikeda, K., et, al (2004). In vitro and in vivo tissue selectivity profile of solifenacin succinate (YM905) for urinary bladder over salivary gland in rats. *European journal of pharmacology*, 492(2), 243-250.
- [2]. Fujii, T., & Kawashima, K. (2000). YM905, a novel M₃ antagonist, inhibits Ca²⁺ signaling and c-fos gene expression mediated via muscarinic receptors in human T cells. *General Pharmacology: The Vascular System*, 35(2), 71-75.
- [3]. Kobayashi, S., Ikeda, K., Suzuki, M., Yamada, T., & Miyata, K. (2001). Effects of YM905, a novel muscarinic M₃-receptor

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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