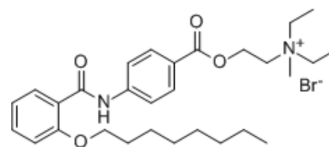


## Otilonium bromide

Cat. No.:	HY-B0499A
CAS No.:	26095-59-0
Molecular Formula:	C <sub>29</sub> H <sub>43</sub> BrN <sub>2</sub> O <sub>4</sub>
Molecular Weight:	563.57
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 100 mg/mL (177.44 mM)  
 DMSO : 50 mg/mL (88.72 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.7744 mL	8.8720 mL	17.7440 mL
	5 mM	0.3549 mL	1.7744 mL	3.5488 mL
	10 mM	0.1774 mL	0.8872 mL	1.7744 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Otilonium bromide (OB) is an orally active mAChR inhibitor and smooth muscle relaxant which can interfere with the mobilization of calcium in intestinal smooth muscle, OB can be used for research of irritable bowel syndrome<sup>[1][2][3]</sup>.

#### In Vitro

Otilonium bromide (10 nM-100 μM) inhibits acetylcholine-induced human colonic crypt calcium signals in a dose dependent manner with an IC<sub>50</sub> of 880 nM<sup>[2]</sup>.  
 Otilonium bromide (30 μM) inhibits Ca<sup>2+</sup> uptake in bovine chromaffin cells<sup>[3]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Front Microbiol. 2020 Jul 31;11:1720.
- ACS Chem Neurosci. 2018 Feb 21;9(2):346-357.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

- [1]. Lindqvist S, et al. The colon-selective spasmolytic otilonium bromide inhibits muscarinic M(3) receptor-coupled calcium signals in isolated human colonic crypts. Br J Pharmacol. 2002 Dec;137(7):1134-42.
- [2]. Battaglia, G., et al., Otilonium bromide in irritable bowel syndrome: a double-blind, placebo-controlled, 15-week study. Aliment Pharmacol Ther, 1998. 12(10): p. 1003-10.
- [3]. Gandia, L., et al., Otilonium: a potent blocker of neuronal nicotinic ACh receptors in bovine chromaffin cells. Br J Pharmacol, 1996. 117(3): p. 463-470.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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