# Tropicamide-d<sub>3</sub>

MedChemExpress

Cat. No.:	HY-B0321S				
CAS No.:	2673270-13	-6			
Molecular Formula:	C <sub>17</sub> H <sub>17</sub> D <sub>3</sub> N <sub>2</sub> O <sub>2</sub>				
Molecular Weight:	287.37				
Target:	mAChR				
Pathway:	GPCR/G Protein; Neuronal Signaling				
Storage:	Powder	-20°C	3 years		
		4°C	2 years		
	In solvent	-80°C	6 months		
		-20°C	1 month		

## **SOLVENT & SOLUBILITY**

Preparing Stock Solutions		Solvent Mass Concentration	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.4798 mL	17.3992 mL	34.7983 mL
		5 mM	0.6960 mL	3.4798 mL	6.9597 mL
	10 mM	0.3480 mL	1.7399 mL	3.4798 mL	

DIOLOGICALACITY					
Description	Tropicamide-d <sub>3</sub> is the deuterium labeled Tropicamide[1]. Tropicamide (Ro 1-7683) is a selective M4 muscarinic acetylcholine receptor antagonist. Tropicamide produces short acting mydriasis (dilation of the pupil) and cycloplegia when applied as eye drops[2][3].				
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.				

## REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Lazareno, S., N.J. Buckley, and F.F. Roberts, Characterization of muscarinic M4 binding sites in rabbit lung, chicken heart, and NG108-15 cells. Mol Pharmacol, 1990.

D

Ο

HO

D

#### 38(6): p. 805-15.

[3]. Hernandez, M., et al., Different muscarinic receptor subtypes mediating the phasic activity and basal tone of pig isolated intravesical ureter. Br J Pharmacol, 1993. 110(4): p. 1413-20.

#### Caution: Product has not been fully validated for medical applications. For research use only.

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA