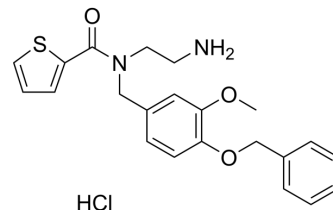


## M8-B

<b>Cat. No.:</b>	HY-110181
<b>CAS No.:</b>	883976-12-3
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>25</sub> ClN <sub>2</sub> O <sub>3</sub> S
<b>Molecular Weight:</b>	432.96
<b>Target:</b>	TRP Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 250 mg/mL (577.42 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	<b>Preparing Stock Solutions</b>		1 mg	5 mg	10 mg
		1 mM	2.3097 mL	11.5484 mL	23.0968 mL
		5 mM	0.4619 mL	2.3097 mL	4.6194 mL
	10 mM	0.2310 mL	1.1548 mL	2.3097 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.80 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.80 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.80 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	M8-B is a potent transient receptor potential melastatin-8 (TRPM8) antagonist. M8-B blocks cold-induced and TRPM8-agonist-induced activation TRPM8 channels. M8-B decreases deep body temperature (Tb) <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	TRPM8
<b>In Vitro</b>	M8-B (0-100 μM) inhibits TRPM8 channel activity by inhibits the maximum Ca <sup>2+</sup> uptake in a dose-dependent manner <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	M8-B (6 mg/kg; i.v. or i.p.) decreases deep body body temperature (Tb) in rats and mouse <sup>[1]</sup> .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Trpm8+/+ rats and mice <sup>[1]</sup>
Dosage:	6 mg/kg
Administration:	I.v. or i.p.
Result:	Decreased deep body temperature (T(b)) in Trpm8+/+ rats and mice, but not in Trpm8-/- mice.

## REFERENCES

[1]. Almeida MC, et al. Pharmacological blockade of the cold receptor TRPM8 attenuates autonomic and behavioral cold defenses and decreases deep body temperature. J Neurosci. 2012 Feb 8;32(6):2086-99.

**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