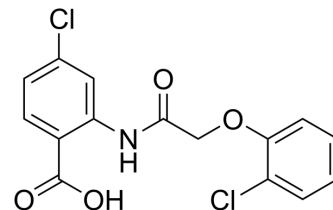


TRPM4-IN-1

Cat. No.:	HY-122605		
CAS No.:	351424-20-9		
Molecular Formula:	C ₁₅ H ₁₁ Cl ₂ NO ₄		
Molecular Weight:	340		
Target:	TRP Channel		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (245.09 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.9412 mL	14.7059 mL	29.4118 mL
		5 mM	0.5882 mL	2.9412 mL	5.8824 mL
10 mM		0.2941 mL	1.4706 mL	2.9412 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.12 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	TRPM4-IN-1 (CBA) is a potent and selective inhibitor of the cation channel TRPM4, with an IC ₅₀ of 1.5 μM. TRPM4-IN-1 can be used for the research of cardiac diseases and prostate cancer ^{[1][2]} .					
In Vitro	<p>TRPM4-IN-1 (compound 5) is a potent and selective inhibitor of TRPM4 current in TRPM4 overexpressed HEK293 cells^[1].</p> <p>TRPM4-IN-1 reversibly blocks endogenous TRPM4 currents in LNCaP (prostate cancer) cells^[1].</p> <p>TRPM4-IN-1 (50 μM; Overnight) restores functional expression of A432T, a loss of expression TRPM4 variant^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1" style="width: 100%;"> <tr> <td>Cell Line:</td> <td>HEK293 cells</td> </tr> <tr> <td>Concentration:</td> <td>50 μM</td> </tr> </table>		Cell Line:	HEK293 cells	Concentration:	50 μM
Cell Line:	HEK293 cells					
Concentration:	50 μM					

Incubation Time:	Overnight
Result:	Partial rescued the total and surface expression of A432T.

REFERENCES

- [1]. Lijo Cherian Ozhathil, et al. Identification of potent and selective small molecule inhibitors of the cation channel TRPM4. Br J Pharmacol. 2018 Jun; 175(12): 2504–2519.
- [2]. Clémence Delalande, et al. Optimizing TRPM4 inhibitors in the MHFP6 chemical space. Eur J Med Chem. 2019 Mar 15;166:167-177.

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

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