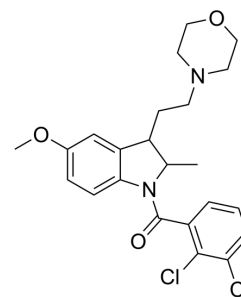


## ML-SI1

<b>Cat. No.:</b>	HY-134818		
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>26</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	449.37		
<b>Target:</b>	TRP Channel		
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



Mixture of diastereomers

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (222.53 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		2.2253 mL	11.1267 mL	22.2534 mL
		<b>5 mM</b>		0.4451 mL	2.2253 mL	4.4507 mL
<b>10 mM</b>		0.2225 mL	1.1127 mL	2.2253 mL		
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution</li> </ol>					

### BIOLOGICAL ACTIVITY

<b>Description</b>	ML-SI1, a racemic mixture of diastereomers, is a TRPML inhibitor with an IC <sub>50</sub> value of 15 μM for TRPML1 <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 15 μM (TRPML1) <sup>[1]</sup>
<b>In Vitro</b>	ML-SI1 is an inseparable racemic mixture of cis-/trans-isomers (55:45) in a short synthetic sequence and its inhibitory activity on hTRPML1 (and a weak effect on TRPML2) after activation with ML-SA1. Fura-2 based single cell calcium imaging experiments confirmed that the synthesized racemic ML-SI1 (10 μM) has an inhibitory effect on hTRPML1 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Ecotoxicol Environ Saf. 2023 Apr 20;257:114942.
- Biochim Biophys Acta Mol Cell Res. 24 October 2022, 119386.

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

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## REFERENCES

[1]. Charlotte Leser, et al. Chemical and pharmacological characterization of the TRPML calcium channel blockers ML-SI1 and ML-SI3. Eur J Med Chem. 2021 Jan 15;210:112966.

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

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