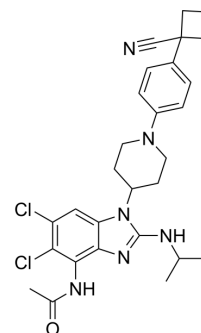


## TRPV4 antagonist 4

<b>Cat. No.:</b>	HY-149823
<b>CAS No.:</b>	2918803-89-9
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>32</sub> Cl <sub>2</sub> N <sub>6</sub> O
<b>Molecular Weight:</b>	539.5
<b>Target:</b>	TRP Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TRPV4 antagonist 4 is a potent TRPV4 antagonist with an IC <sub>50</sub> value of 22.65 nM. TRPV4 antagonist 4 inhibits TRPV4 current. TRPV4 antagonist 4 shows protective effects on acute lung injury <sup>[1]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	TRPV4 22.65 nM (IC <sub>50</sub> )	
<b>In Vitro</b>	TRPV4 antagonist 4 (compound 2b; 1 μM) inhibits GSK1016790A (HY-19608) (100 nM)-induced TRPV4 whole-cell currents in TRPV4-CHO cells <sup>[1]</sup> . TRPV4 antagonist 4 suppresses the permeability response to LPS (HY-D1056) in HUVEC <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
<b>In Vivo</b>	TRPV4 antagonist 4 (1 mg/kg; i.p.) improves the pneumonodema, the lung pathologic changes in LPS-induced mouse lung injury mode <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	<b>Animal Model:</b>	Mice (acute lung injury (ALI)) <sup>[1]</sup>
	<b>Dosage:</b>	1 mg/kg
	<b>Administration:</b>	i.p.; before LPS inhalation
	<b>Result:</b>	Displayed significant effects to reduce the lung W/D ratio and significantly decreased the concentrations of BALF protein, significantly blocked the permeability response to LPS stimulates, greatly improved the pneumonodema, the lung pathologic changes in LPS-induced mouse lung injury mode.

### REFERENCES

[1]. Ai C, et al. Discovery and pharmacological characterization of a novel benzimidazole TRPV4 antagonist with cyanocyclobutyl moiety. *Eur J Med Chem.* 2023 Mar 5;249:115137.

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

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