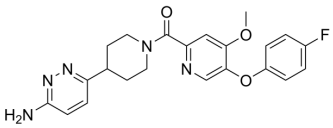
TRPC6-IN-3

Cat. No.:	HY-148129
CAS No.:	2311863-36-0
Molecular Formula:	$C_{22}H_{22}FN_5O_3$
Molecular Weight:	423.44
Target:	TRP Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (295.20 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3616 mL	11.8080 mL	23.6161 mL
	5 mM	0.4723 mL	2.3616 mL	4.7232 mL
	10 mM	0.2362 mL	1.1808 mL	2.3616 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.91 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.91 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TRPC6-IN-3 (compound 17) is a potent, orally active transient receptor potential C6 ion channel (TRPC6) inhibitor. TRPC6-IN-3 modulates not only intracellular calcium concentration, but also membrane potential by modulating the flux of cations including calcium and sodium ions. TRPC6-IN-3 can be used in research of respiratory system[1].

In Vivo

TRPC6-IN-3 (compound 17; 1-10 mg/kg; p.o.; orally 12 h and 2 h before LPS challenge; LPS-induced mice) inhibits LPS-induced vascular leakage and inhibits accumulation of Broncho-Alveolar-Lavage protein (BALF protein) in a mouse model[1].
TRPC6-IN-3 (3 mg/kg; p.o.; daily, for 4 d; H1N1-induced mice) reduces H1N1-induced vascular leakage in a mouse model[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	LPS-induced mice[1]
Dosage:	1, 3, and 10 mg/kg
Administration:	Oral administration; orally 12 h and 2 h before LPS challenge
Result:	Reduced BALF protein concentration of 56 % at 3 mg/kg and 62 % at 10 mg/kg.

Animal Model:	H1N1-induced mice[1]
Dosage:	3 mg/kg
Administration:	Oral administration; daily, for 4 days
Result:	Inhibited Evans blue extravasation from the blood to the BALF and reduced BALF Evans blue by 24 % at 3 mg/kg.

REFERENCES

[1]. Thierry B, et, al. Inhibitors of TRPC6 for treating respiratory conditions. WO2021209510.

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