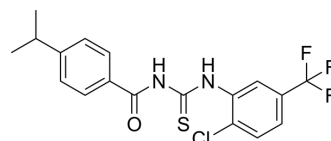


Mesendogen

Cat. No.:	HY-103073		
CAS No.:	864716-85-8		
Molecular Formula:	C ₁₈ H ₁₆ ClF ₃ N ₂ OS		
Molecular Weight:	400.85		
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 : 100 mg/mL (249.47 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.4947 mL	12.4735 mL	24.9470 mL
	5 mM	0.4989 mL	2.4947 mL	4.9894 mL
	10 mM	0.2495 mL	1.2473 mL	2.4947 mL

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

BIOLOGICAL ACTIVITY

Description

Mesendogen is a TRPM6 inhibitor. Mesendogen enhances the mesoderm and definitive endoderm (DE) differentiations of human embryonic stem cells (hESCs) and human induced pluripotent stem cells (hiPSCs). Mesendogen can be used for the research of magnesium homeostasis during early embryonic cell development^[1].

In Vitro

Mesendogen (10 μM) induces hESC mesoderm and endoderm differentiation, and decreases the level of neural differentiation markers^[1].

Mesendogen (2.5, 10 and 25 μM; overnight) dose-dependently reduces intracellular magnesium level in H1 hESCs^[1].

Mesendogen (10 μM; 7 days) inhibits the neural differentiation activity induced by Dorsomorphin^[1].

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

Western Blot Analysis^[1]

Cell Line: H9 hESCs

Concentration: 10 μM

Incubation Time:	7 days
Result:	Downregulated expression levels of pluripotency markers OCT4 and SOX2.

REFERENCES

[1]. Geng Y, Feng B. Mesendogen, a novel inhibitor of TRPM6, promotes mesoderm and definitive endoderm differentiation of human embryonic stem cells through alteration of magnesium homeostasis. *Heliyon*. 2015 Dec 1;1(4):e00046.

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

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