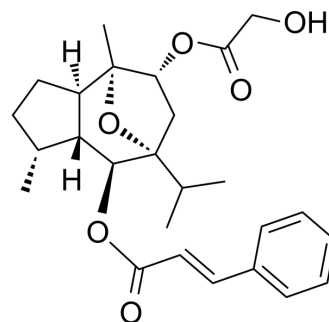


Englerin A

Cat. No.:	HY-133168	
CAS No.:	1094250-15-3	
Molecular Formula:	C ₂₆ H ₃₄ O ₆	
Molecular Weight:	442.54	
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

Methanol : 30 mg/mL (67.79 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.2597 mL	11.2984 mL	22.5968 mL
5 mM	0.4519 mL	2.2597 mL	4.5194 mL
10 mM	0.2260 mL	1.1298 mL	2.2597 mL

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

BIOLOGICAL ACTIVITY

Description

Englerin A is a potent and selective activator of TRPC4 and TRPC5 channels, with EC₅₀s of 11.2 and 7.6 nM, respectively. Englerin A can induce renal carcinoma cells death by elevated Ca²⁺ influx and Ca²⁺ cell overload^{[1][2][3]}.

IC₅₀ & Target

hTRPC4 11.2 nM (EC50)	hTRPC5 7.6 nM (EC50)
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In Vitro

Englerin A (0.15-2500 nM; 48 h) characteristic concentration-dependent suppresses cells growth of the A-498 cells treated with the control siRNA while has little effect on the growth of cells treated with TRPC4 siRNAs^[3].
 Englerin A (0.001nM-10 μM; 48 h) inhibits cells viability in HEK293T cells overexpressing TRPC5^[3].
 Englerin A (3 nM; 1-240 s) evokes sustained elevation of the intracellular Ca²⁺ concentration within 1 min in HEK 293 cells over-expressing human TRPC4^[1].
 Englerin A (0.1-1000 nM; 1-300 s) evokes intracellular Ca²⁺ elevations in A498 cells as well with an EC₅₀ of 10 nM^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Englerin A (5 mg/kg; i.p daily except Sunday) markedly inhibits tumor growth during the 2-week treatment period in mice^[4].

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

REFERENCES

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- [2]. Rubaiy HN, et, al. Identification of an (-)-englerin A analogue, which antagonizes (-)-englerin A at TRPC1/4/5 channels. *Br J Pharmacol*. 2018 Mar; 175(5):830-839.
- [3]. Carson C, et, al. Englerin A Agonizes the TRPC4/C5 Cation Channels to Inhibit Tumor Cell Line Proliferation. *PLoS One*. 2015 Jun 22;10(6):e0127498.
- [4]. Sourbier C, et, al. Englerin A stimulates PKC θ to inhibit insulin signaling and to simultaneously activate HSF1: pharmacologically induced synthetic lethality. *Cancer Cell*. 2013 Feb 11;23(2):228-37.
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Caution: Product has not been fully validated for medical applications. For research use only.

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