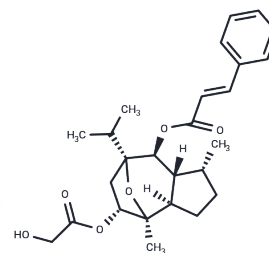


Englerin A

Chemical Properties

CAS No. :	1094250-15-3
Formula:	C ₂₆ H ₃₄ O ₆
Molecular Weight:	442.54
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Englerin A, a TRPC4 and TRPC5 channel agonist, is a compound from the East African plant <i>Phyllanthus engleri</i> with analgesic, anti-inflammatory, and anticancer activities that induces necrosis in human renal cancer cells.
Targets(IC50)	TRP/TRPV Channel
In vitro	Englerin A (50 nM) activates TRPC4/C5 channels, leading to an increase in intracellular calcium and membrane depolarization[3].
In vivo	Athymic mice bearing 786-0 tumor xenografts were treated with Englerin A (5mg/kg i.p., daily except Sunday), and the results showed that Englerin A significantly inhibited tumor growth during the treatment period[4].

Solubility Information

Solubility	Methanol: 20 mg/mL (45.19 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2597 mL	11.2984 mL	22.5968 mL
5 mM	0.4519 mL	2.2597 mL	4.5194 mL
10 mM	0.226 mL	1.1298 mL	2.2597 mL
50 mM	0.0452 mL	0.226 mL	0.4519 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Akbulut Y, et al. (-)-Englerin A is a potent and selective activator of TRPC4 and TRPC5 calcium channels. *Angew Chem Int Ed Engl.* 2015 Mar 16;54(12):3787-91.

Yang L, Peng Z, Gong F, et al. TRPC4 Aggravates Hypoxic Pulmonary Hypertension by Promoting Pulmonary Endothelial Cell Apoptosis. *Free Radical Biology and Medicine.* 2024

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.

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.

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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