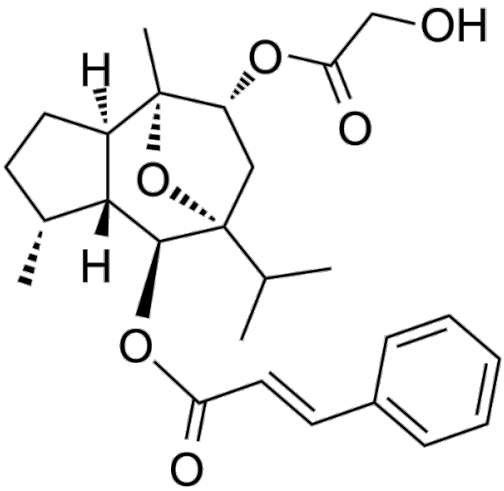
Product Data Sheet

Product Name: Englerin A
Cat. No.: GC64459

Chemical Properties

Cas. No.	1094250-15-3		
Formula	C26H34O6	M.Wt	442.54
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

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].

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

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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].

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

[1]. 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.
[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 PKCθ to inhibit insulin signaling and to simultaneously activate HSF1: pharmacologically induced synthetic lethality. Cancer Cell. 2013 Feb 11;23(2):228-37.

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