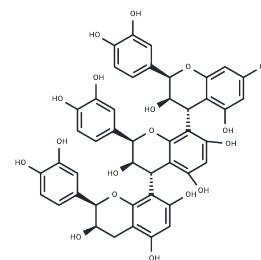


PROCYANIDIN C1

Chemical Properties

CAS No. :	37064-30-5
Formula:	C45H38O18
Molecular Weight:	866.77
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Procyanidin C1 is a natural polyphenol that causes DNA damage, cell cycle arrest, and apoptosis induction. It reduces Bcl-2 protein levels and enhances the expression of BAX, caspase 3, and 9 in cancer cells.
Targets(IC50)	Apoptosis
In vitro	<p>METHODS: PSC27 cells were treated with Procyanidin C1 (5, 10, 25, 50, 100, 400 μM) and senescent PSC27 cell survival was measured by SA-β-Gal staining.</p> <p>RESULTS Procyanidin C1 exerted an anti-senescent effect on senescent stromal cells starting at a concentration of 50 μM, at which concentration proliferating cells were largely unaffected. [1]</p> <p>METHODS: Procyanidin C1 (5 and 10 μM) was used in DLD1 and HCT116 cells, and the expression of has-miR-501-3p was detected.</p> <p>RESULTS Procyanidin C1 inhibited the expression of has-miR-501-3p in CRC cells with increasing concentrations. [4]</p>
In vivo	<p>METHODS: DLD1 and SW1463 cells were injected into the right axilla of BALB/c nude mice. The nude mice were treated with Procyanidin C1 (20 mg/kg and 40 mg/kg, intraperitoneal injection, once every three days), and the tumor volume and tumor weight were calculated.</p> <p>METHODS: Procyanidin C1 can inhibit tumor growth and metastasis in CRC, and the has-miR-501-3p/HIGD1A axis is involved in this process. [4]</p>

Solubility Information

Solubility	DMSO: 90.14 mg/mL (104 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (3.81 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1537 mL	5.7685 mL	11.5371 mL
5 mM	0.2307 mL	1.1537 mL	2.3074 mL
10 mM	0.1154 mL	0.5769 mL	1.1537 mL
50 mM	0.0231 mL	0.1154 mL	0.2307 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

Xu Q, et al. The flavonoid procyanidin C1 has senotherapeutic activity and increases lifespan in mice. *Nat Metab.* 2021 Dec;3(12):1706-1726.

Mir-Cerdà A, Granados M, Saurina J, et al. Green Extraction of Antioxidant Compounds from Olive Tree Leaves Based on Natural Deep Eutectic Solvents. *Antioxidants.* 2023, 12(5): 995.

Sun P, et al. Procyanidin C1, a Component of Cinnamon Extracts, Is a Potential Insulin Sensitizer That Targets Adipocytes. *J Agric Food Chem.* 2019 Aug 14;67(32):8839-8846.

Koteswari LL, et al. A comparative anticancer study on procyanidin C1 against receptor positive and receptor negative breast cancer. *Nat Prod Res.* 2020 Nov;34(22):3267-3274.

Lv JL, et al. Procyanidin C1 inhibits tumor growth and metastasis in colon cancer via modulating miR-501-3p/HIGD1A axis. *J Adv Res.* 2024 Jun;60:215-231.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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