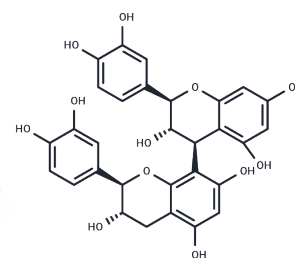


Procyanidin B3

Chemical Properties

CAS No. :	23567-23-9
Formula:	C30H26O12
Molecular Weight:	578.52
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 B3(B3) is a procyanidin dimer that is widely studied due to its high abundance in the human diet and antioxidant activity.
Targets(IC50)	Androgen Receptor,Histone Acetyltransferase,TLR
In vitro	We observed that Procyanidin B3 inhibited H ₂ O ₂ -induced apoptosis in primary chondrocytes, suppressed H ₂ O ₂ - or IL-1 β -induced nitric oxide synthase (iNOS) production, and prevented IL-1 β -induced suppression of chondrocyte differentiation marker gene expression in primary chondrocytes. Moreover, Procyanidin B3 treatment enhanced the early differentiation of ATDC5 cells. To examine whether Procyanidin B3 prevents cartilage destruction in vivo, OA was surgically induced in C57BL/6J mice followed by oral administration of Procyanidin B3 or vehicle control. Daily oral Procyanidin B3 administration protected articular cartilage from OA and prevented chondrocyte apoptosis in surgically-induced OA joints. Furthermore, Procyanidin B3 administration prevented heterotopic cartilage formation near the surgical region. iNOS protein expression was enhanced in the synovial tissues and the pseudocapsule around the surgical region in OA mice fed a control diet, but was reduced in mice that received Procyanidin B3. Together, these data indicated that in the OA model, Procyanidin B3 prevented OA progression and heterotopic cartilage formation, at least in a part through the suppression of iNOS.

Solubility Information

Solubility	DMSO: 150 mg/mL (259.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.73 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	1.7285 mL	8.6427 mL	17.2855 mL
5 mM	0.3457 mL	1.7285 mL	3.4571 mL
10 mM	0.1729 mL	0.8643 mL	1.7285 mL
50 mM	0.0346 mL	0.1729 mL	0.3457 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

Procyanidin B3 prevents articular cartilage degeneration and heterotopic cartilage formation in a mouse surgical osteoarthritis model. PLoS One. 2012;7(5):e37728.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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