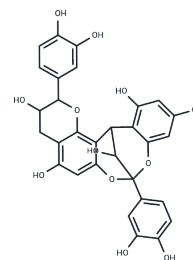


Procyanidin A1

Chemical Properties

CAS No. :	103883-03-0
Formula:	C30H24O12
Molecular Weight:	576.50
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Procyanidin A1 (Proanthocyanidin A1) has anti-allergic effects, it inhibits degranulation downstream of protein kinase C activation or Ca ²⁺ ; influx from an internal store in RBL-2H3 cells.
Targets(IC50)	Calcium Channel, LDL, PKC
In vitro	We found that a peanut-skin extract (PSE) inhibits the degranulation induced by antigen stimulation of rat basophilic leukemia (RBL-2H3) cells. A low-molecular-weight fraction from PSE, PSEL, also had inhibitory activity against allergic degranulation. A main polyphenol in PSEL was purified by gel chromatography and fractionated by YMC-gel ODS-AQ 120S50 column. Electrospray ionization mass spectrometry (ESI-MS) analysis of the purified polyphenol gave m/z 599 [M+Na] ⁺ . Based on the results of 1H-NMR, 13C-NMR spectra, and optical rotation analysis, the polyphenol was identified as Procyanidin A1. It inhibited the degranulation caused by antigen stimulation at the IC ₅₀ of 20.3 μM. Phorbol-12-myristate-13-acetate (PMA) and 2,5-di(tert-butyl)-1,4-hydroquinone (DTBHQ)-induced processes of degranulation were also inhibited by Procyanidin A1[1]

Solubility Information

Solubility	DMSO: 140 mg/mL (242.84 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: 2.00 mg/mL (3.47 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	1.7346 mL	8.673 mL	17.3461 mL
5 mM	0.3469 mL	1.7346 mL	3.4692 mL
10 mM	0.1735 mL	0.8673 mL	1.7346 mL
50 mM	0.0347 mL	0.1735 mL	0.3469 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

Effects of peanut-skin procyanidin A1 on degranulation of RBL-2H3 cells. *Biosci Biotechnol Biochem.* 2011;75(9): 1644-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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