



Product Data Sheet

Pinolenic acid ethyl ester

Cat. No.: HY-124187 CAS No.: 493015-74-0 Molecular Formula: $C_{20}H_{34}O_{2}$

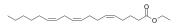
306.48 Molecular Weight:

Target: **Biochemical Assay Reagents**

Pathway: Others

4°C, protect from light Storage:

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (326.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.2629 mL	16.3143 mL	32.6286 mL
	5 mM	0.6526 mL	3.2629 mL	6.5257 mL
	10 mM	0.3263 mL	1.6314 mL	3.2629 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (8.16 mM); Suspended solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (8.16 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pinolenic acid is a polyunsaturated fatty acid found in the seed oils of red pine (Pinus orientalis) and maritime pine (Pinus pinaster). Both oils were found to have lipid-lowering properties. A diet containing marine pine nut oil (MPSO) reduces HDL and ApoA1 levels in transgenic mice expressing human ApoA1. MPSO was found to reduce cholesterol efflux in vitro. Korean pine nut oil supplements may help obesity by reducing appetite. People who take this oil experience an increase in the satiety hormones CCK and GLP-1 and a decrease in appetite. The activity of the oil is attributed to pinolenic acid. Pinolenic acid is not metabolized to arachidonic acid and can reduce the level of arachidonic acid in the phosphatidylinositol fraction of HepG2 cells from 15.9% to 7.0%. Pinolenic acid ethyl ester is a neutral, more lipophilic form of the free acid.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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