

## Pinolenic Acid

## Chemical Properties

CAS No. : 16833-54-8

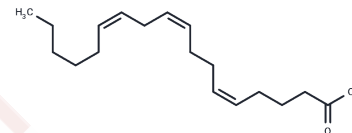
Formula: C18H30O2

Molecular Weight: 278.43

Store at low temperature

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	Pinolenic Acid (PNLA) is an omega-6 polyunsaturated fatty acid extracted from pine nuts, with anti-inflammatory, anticancer, and lipid-lowering activities, improving oleic acid-induced lipogenesis and oxidative stress in HepG2 cells, useful in breast cancer research.
Targets(IC50)	GPCR

## Solubility Information

Solubility	DMF: 20 mg/mL (71.83 mM), Sonication is recommended. DMSO: 20 mg/mL (71.83 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5916 mL	17.9578 mL	35.9157 mL
5 mM	0.7183 mL	3.5916 mL	7.1831 mL
10 mM	0.3592 mL	1.7958 mL	3.5916 mL
50 mM	0.0718 mL	0.3592 mL	0.7183 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

Asset, G., Leroy, A., Bauge, E., et al. Effects of dietary maritime pine (*Pinus pinaster*)-seed oil on high-density lipoprotein levels and in vitro cholesterol efflux in mice expressing human apolipoprotein A-I. *British Journal of Nutrition* 84, 353-360 (2000).

Tamotsu, T., Tatsunori, T., Morishige, J., et al. Non-methylene-interrupted polyunsaturated fatty acids: Effective substitute for arachidonate of phosphatidylinositol. *Biochemical and Biophysical Research Communications* 264, 683-688 (1999).

Takala R, et al. The Beneficial Effects of Pine Nuts and Its Major Fatty Acid, Pinolenic Acid, on Inflammation and Metabolic Perturbations in Inflammatory Disorders. *Int J Mol Sci.* 2023 Jan 6;24(2):1171.

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