

## Jacaric Acid

## Chemical Properties

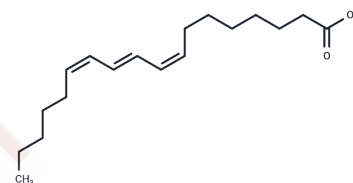
CAS No. : 28872-28-8

Formula: C<sub>18</sub>H<sub>30</sub>O<sub>2</sub>

Molecular Weight: 278.436

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	Jacaric acid is a conjugated polyunsaturated fatty acid first isolated from seeds of Jacaranda plants. Structurally, it is an 18-carbon $\omega$ -6 triene isomer of $\gamma$ -linolenic acid. Jacaric acid induces cell cycle arrest and apoptosis in a variety of cancer cell lines (GI <sub>50</sub> = 1-5 $\mu$ M). It increases the production of reactive oxygen species, and cytotoxicity is abolished by the antioxidant $\alpha$ -tocopherol, suggesting that apoptosis results from oxidative stress. Jacaric acid is metabolized in vivo to conjugated linoleic acid, which is also cytotoxic to cancer cells. Jacaric acid inhibits cyclooxygenase-1 in vitro ( $K_i$ = 1.7 $\mu$ M) and, with long term feeding, decreases stearyl-CoA desaturase expression and activity in mice.
Targets(IC <sub>50</sub> )	Apoptosis,Others

## Solubility Information

Solubility	Ethanol: 100 mg/mL (359.15 mM),Sonication is recommended. DMF: 30 mg/mL (107.74 mM),Sonication is recommended. Ethanol:PBS(pH 7.2) (1:1): 0.5 mg/mL (1.8 mM),Sonication is recommended. DMSO: 30 mg/mL (107.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.5914 mL	17.9572 mL	35.9144 mL
5 mM	0.7183 mL	3.5914 mL	7.1829 mL
10 mM	0.3591 mL	1.7957 mL	3.5914 mL
50 mM	0.0718 mL	0.3591 mL	0.7183 mL

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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.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481