

Product Data Sheet

Product Name: Jacaric Acid

Cat. No.: GC41645

Chemical Properties

Cas. No. 28872-28-8

SMILES CCCCC/C=C\C=C\C=C/C/CCCCCCC(O)=O

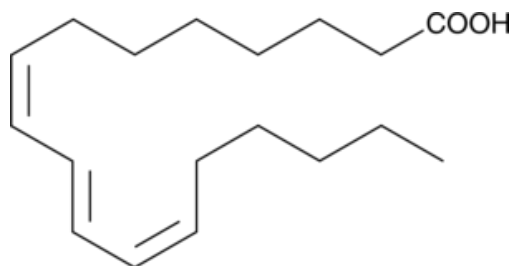
Formula C₁₈H₃₀O₂ M.Wt 278.4

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 100 mg/ml, Ethanol: PBS (pH 7.2) (1:1): 0.5 mg/ml
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Jacaric acid is a conjugated polyunsaturated fatty acid first isolated from seeds of Jacaranda plants. Structurally, it is an 18-carbon ω -6 triene isomer of γ -linolenic acid. Jacaric acid induces cell cycle arrest and apoptosis in a variety of cancer cell lines (GI₅₀ = 1-5 μ M). It increases the production of reactive oxygen species, and cytotoxicity is abolished by the antioxidant α -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 μ M) and, with long term feeding, decreases stearoyl-CoA desaturase expression and activity in mice.

Caution: Product has not been fully validated for medical applications. For research use only.

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