

Product Data Sheet

Product Name: cis-Parinaric Acid

Cat. No.: GC40545

Chemical Properties

Cas. No. 18427-44-6

Chemical Name 9Z,11E,13E,15Z-octadecatetraenoic acid

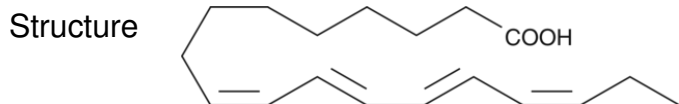
SMILES CC/C=C\C/C=C/C=C\C/C=C\CCCCCCCC(=O)O

Formula C₁₈H₂₈O₂ M.Wt 276.4

Solubility 15mg/mL in benzene, or in ether, 10mg/mL in hexane Storage Store at -80°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.



Background

cis-Parinaric acid is a naturally occurring polyunsaturated fatty acid containing an unusual conjugated (Z,E,E,Z) tetraene. This chromophore provides for a natural fluorescence at 432 nm with an excitation wavelength at 320 nm. cis-Parinaric acid occurs naturally in the seeds of the Makita tree, a tropical rainforest tree indigenous to Fiji. Makita seeds are inedible, and this toxicity may be due at least in part to the unstable conjugated fatty acids, including cis-parinaric acid, contained within the seed. cis-Parinaric acid has been used for the measurement of phospholipase activity, lipase activity, and as an indicator of lipid peroxidation.[1][2][3][4]

Reference:

[1]. Wolf, C., Sagaert, L., and Bereziat, G. A sensitive assay of phospholipase using the fluorescent probe 2-parinaroylleicithin. Biochemical and Biophysical Research Communications 99, 275-283

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

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(1981).

[2]. Beisson, F., Ferte, N., Nari, J., et al. Use of naturally fluorescent triacylglycerols from *Parinari glaberrimum* to detect low lipase activities from *Arabidopsis thaliana* seedlings. *Journal of Lipid Research* 40, 2313-2321 (1999).

[3]. McGuire, S.O., James-Kracke, M.R., Sun, G.Y., et al. An esterification protocol for cis-parinaric acid-determined lipid peroxidation in immune cells. *Lipids* 32, 219-226 (1997).

[4]. de Hingh, Y.C.M., Meyer, J., Fischer, J.C., et al. Direct measurement of lipid peroxidation in submitochondrial particles. *Biochemistry* 34, 12755-12760 (1995).

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