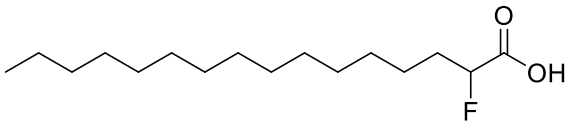
PRODUCT DATA SHEET

2-Fluoropalmitic acid

Catalog No: 1717
Activity: Acyl-CoA synthase inhibitor
Source: synthetic
Solubility: chloroform, methanol, ethanol
CAS No: 16518-94-8
Molecular Formula: $C_{16}H_{31}FO_2$

Molecular Weight: 274
Storage: -20°C
Purity: TLC > 98%, identity confirmed by MS
TLC System: hexane/ethyl ether/acetic acid (70:30:2 by vol.)
Appearance: solid



Application Notes:

2-Fluoropalmitic acid is a synthetic inhibitor of Palmitoyl-CoA formation by long chain acyl-CoA synthetase thereby inhibiting sphingosine biosynthesis and protein palmitoylation. This product is very useful in the investigation of sphingosine synthesis[1], protein acylation[2], and other biological mechanisms[3]. Other alpha-fluoro-fatty acids also inhibit their respective acyl-CoAs.[4]

Selected References:

1. R. Soltysiak et al. "D,L-alpha-Fluoropalmitic acid inhibits sphingosine base formation and accumulates in membrane lipids of cultured mammalian cells" *Biochim Biophys Acta*, Vol. 792(2) pp. 214-226, *1984*
2. J. Zhang et al. "Novel bimodal effects of the G-protein tissue transglutaminase on adrenoreceptor signaling" *Journal of Biochemistry*, Vol. 343, 541-549, *1999*
3. G. DeJesus and O. Bizzozero "Effect of 2-Fluoropalmitate, Cerulenin and Tunicamycin on the Palmitoylation and Intracellular Translocation of Myelin Proteolipid Protein" *Neurochemical Research*, Vol. 27(12) pp. 1669-1675, *2002*
4. M. Grillo et al. "Effect of α-Fluorination of Valproic Acid on Valproyl-S-Acyl-CoA Formation in Vivo in Rats" *Drug Metabolism and Disposition*, Vol. 29(9) pp. 1210-1215, *2001*

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DS 1717 Rev. #5
March 24, 2022