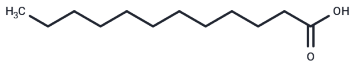
Data Sheet (Cat.No.T6873)

TargetMol

Lauric Acid

Chemical Properties



CAS No. : 143-07-7

Formula: C12H24O2

Molecular Weight: 200.32

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Lauric Acid (Dodecylic acid),which is found naturally in various plant and animal fats and oils, is a saturated medium-chain fatty acid with a 12-carbon backbone. It is a major component of coconut oil and palm kernel oil.
Targets(IC50)	Endogenous Metabolite,Antibacterial
In vitro	Lauric acid induces apoptosis in Caco-2 ($p<0.05$) and IEC-6 cells ($p<0.05$). In Caco-2 cells, lauric acid reduces GSH availability and generated ROS compared to butyrate($p < 0.05$). Lauric acid reduces Caco-2 and IEC-6 cells in G0/G1 and arrested cells in the S and G2/M phases. Lauric acid induces apoptosis in IEC-6 cells compared to butyrate($p < 0.05$). Lauric acid induces high levels of ROS[1].
Kinase Assay	JAK2 and other human kinase activity assays: JAK2 kinase activity was assessed with the HTScan JAK2 Kinase Assay Kit per manufacturer's protocol. The possible effects of FLLL32 on the other 10 purified human protein kinases were determined by using a Kinase Profiler Assay.
Cell Research	Cell lines are harvested by enzymatic dissociation and seeded into 24-well tissue culture plates at 2.5 × 105 and 1.5 × 105 cells/ml, respectively. After 24 h of incubation, the medium is replaced with 1 ml of complete DMEM containing freshly prepared (50 mM) Lauric acid, conjugated to 0.4% FAF-BSA to final concentrations of 0.1, 0.3, 0.5 and 1 mM and compared to NaB (5 mM) with 50 µl of 0.4% FAF-BSA as a vehicle control and incubated in a humidified atmosphere at 37°C in 5% CO2 and, after enzymatic dissociation, assayed at 24, 48, 72, and 96 h. All experimental studies are undertaken in triplicate and measured in duplicate. (Only for Reference)

Solubility Information

Solubility	Ethanol: 38 mg/mL (189.7 mM),Sonication is recommended. DMSO: 45 mg/mL (224.64 mM),Sonication is recommended. H2O: 16 mg/mL (79.87 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.992 mL	24.9601 mL	49.9201 mL
5 mM	0.9984 mL	4.992 mL	9.984 mL
10 mM	0.4992 mL	2.496 mL	4.992 mL
50 mM	0.0998 mL	0.4992 mL	0.9984 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.

Reference

Fauser JK, et al. Chemotherapy. 2013, 59(3):214-24.