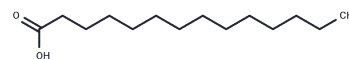


Myristic acid

Chemical Properties

CAS No. :	544-63-8
Formula:	C14H28O2
Molecular Weight:	228.37
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	Myristic acid (Crodadid) , a 14 carbon saturated fatty acid, is a rare molecule in cells and is a substrate of some fatty acid desaturases. This compound has the ability to acylate proteins by covalently binding to the N-terminal glycine residues, in a process called N-terminal myristoylation. Myristoylation of substrate proteins by this fatty acid has the potential to activate and mediate many physiological pathways. Furthermore, saturated fatty acids have been reported to be essential for biological activities of lipopolysaccharides and have demonstrated the ability to induce expression of COX-2 and NFκB (nuclear factor κB) activation.
Targets(IC50)	NF-κB,Endogenous Metabolite,Antibacterial

Solubility Information

Solubility	DMSO: 252.5 mg/mL (1105.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3789 mL	21.8943 mL	43.7886 mL
5 mM	0.8758 mL	4.3789 mL	8.7577 mL
10 mM	0.4379 mL	2.1894 mL	4.3789 mL
50 mM	0.0876 mL	0.4379 mL	0.8758 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.

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.

Reference

Lee JY,etal.Saturated fatty acids, but not unsaturated fatty acids, induce the expression of cyclooxygenase-2 mediated through Toll-like receptor 4. J Biol Chem. 2001 May 18;276(20):16683-9.

Becker LC,etal.Final report of the amended safety assessment of myristic acid and its salts and esters as used in cosmetics.Int J Toxicol. 2010 Jul;29(4 Suppl):162S-86S.

Rioux V,etal.Regulation of mammalian desaturases by myristic acid: N-terminal myristoylation and other modulations.Biochim Biophys Acta. 2011 Jan;1811(1):1-8.

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