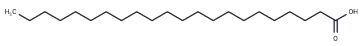
Data Sheet (Cat.No.T5942)

TargetMol

Docosanoic acid

Chemical Properties



CAS No. : 112-85-6

Formula: C22H44O2

Molecular Weight: 340.58

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	Docosanoic acid (Behenic Acid) is a long-chain saturated fatty acid. It has been found in peanut and M. oleifera seed oils.
Targets(IC50)	Endogenous Metabolite,DNA/RNA Synthesis
In vitro	Docosanoic acid inhibits rat DNA polymerase β and human DNA polymerase λ activity in cell-free enzyme assays when used at a concentration of 100 μM and inhibits human DNA topoisomerase I and II relaxation activity at a concentration of 25 μM[1].?Liver levels of docosanoic acid are reduced in rats fed a high-fat or a high-fat high-cholesterol diet but not a high-cholesterol diet[2].?Formulations containing docosanoic acid have been used in hair conditioner and moisturizers.

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble) Ethanol: 1 mg/mL (2.94 mM),Sonication and heating to 50°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9362 mL	14.6808 mL	29.3617 mL
5 mM	0.5872 mL	2.9362 mL	5.8723 mL
10 mM	0.2936 mL	1.4681 mL	2.9362 mL
50 mM	0.0587 mL	0.2936 mL	0.5872 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

Yonezawa Y , Hada T , Uryu K , et al. Inhibitory action of C22-fatty acids on DNA polymerases and DNA topoisomerases[J]. International Journal of Molecular Medicine, 2006, 18(4):583---588.
Serviddio G , Bellanti F , Villani R , et al. Effects of dietary fatty acids and cholesterol excess on liver injury: A lipidomic approach[J]. Redox Biology, 2016, 9:296-305.

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