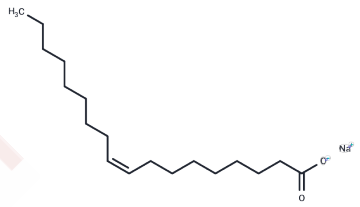
Data Sheet (Cat.No.T36390)

TargetMol

Sodium oleate

Chemical Properties



CAS No. : 143-19-1

Formula: C18H33NaO2

Molecular Weight: 304.44

Storage: Keep away from moisture
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	Sodium oleate (cis-9-Octadecenoic acid sodium salt) (Oleic acid sodium) is an abundant monounsaturated fatty acid sodium. Sodium oleate is a Na+/K+ ATPase activator.
Targets(IC50)	Apoptosis,ATPase
In vitro	Sodium oleate is the most common monounsaturated fatty acids (FA) in human adipocytes and other tissues. Sodium oleate prompts cell proliferation and migration in high metastatic cancer cells via enhancing β-oxidation mediated by AMPK activation. Sodium oleate inhibits cancer cell growth and survival in low metastatic carcinoma cells, such as gastric carcinoma SGC7901 and breast carcinoma MCF-7 cell lines[1].

Solubility Information

Solubility	Ethanol:PBS(pH 7.2) (1:1): 0.5 mg/mL (1.64 mM),Sonication is recommended. Ethanol: 1.5 mg/mL (4.93 mM),Sonication is recommended. H2O: 1.25 mg/mL (4.11 mM),Sonication is recommended. DMSO: Insoluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2847 mL	16.4236 mL	32.8472 mL
5 mM	0.6569 mL	3.2847 mL	6.5694 mL
10 mM	0.3285 mL	1.6424 mL	3.2847 mL
50 mM	0.0657 mL	0.3285 mL	0.6569 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

Li S, et al. High metastaticgastric and breast cancer cells consume oleic acid in an AMPK dependent manner. PLoS One. 2014 May 13;9(5):e97330.

Jack-Hays MG, et al. Activation of Na+/K(+)-ATPase by fatty acids, acylglycerols, and related amphiphiles: structure-activity relationship. Biochim Biophys Acta. 1996 Feb 21;1279(1):43-8.