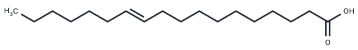
Data Sheet (Cat.No.TQ0194)

TargetMol

trans-Vaccenic acid

Chemical Properties



CAS No. : 693-72-1

Formula: C18H34O2

Molecular Weight: 282.46

Storage: Store at low temperature
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	trans-Vaccenic acid is a precursor substance that synthesizes saturated fatty acids in the rumen and conjugated linoleic acid at the tissue level. trans-Vaccenic acid inhibits proliferation and induces apoptosis of human nasopharyngeal carcinoma cells through the mitochondria-mediated apoptotic pathway.
Targets(IC50)	Apoptosis,Bcl-2 Family,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 120 mg/mL (424.84 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (11.68 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5403 mL	17.7016 mL	35.4032 mL
5 mM	0.7081 mL	3.5403 mL	7.0806 mL
10 mM	0.354 mL	1.7702 mL	3.5403 mL
50 mM	0.0708 mL	0.354 mL	0.7081 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 D, et al. Ruminal microbe of biohydrogenation of trans-vaccenic acid to stearic acid in vitro. BMC Res Notes. 2012 Feb 15;5:97.
Fan H, Xia S, Xiang J, et al. Trans-vaccenic acid reprograms CD8+ T cells and anti-tumour immunity. Nature. Published online November 22, 2023. doi:10.1038/s41586-023-06749-3