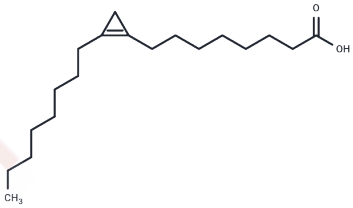
Data Sheet (Cat.No.T41253)

TargetMol

Sterculic acid

Chemical Properties



CAS No. : 738-87-4

Formula: C19H34O2

Molecular Weight: 294.47

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	Sterculic acid, a stearoyl-CoA desaturase-1 (SCD1) inhibitor, effectively suppresses delta-9 desaturase (Δ9D) activity in a dose-dependent manner, exhibiting an inhibition concentration (IC50) value of 0.9 μM [1].
Targets(IC50)	Others,Stearoyl-CoA Desaturase (SCD)
In vitro	Sterculic acid (SA), a cyclopropene fatty acid derived from Sterculia foetida seeds, exhibits diverse biological activities, including the reduction of adrenomedullin expression (AP, RP, APS, IML, in preparation) and mediating anti-inflammatory and protective effects. It also demonstrates a potent luteolytic effect in ovines by inhibiting progesterone synthesis, leading to luteal regression [2].
In vivo	Sterculic acid is suggested as a promising intervention for metabolic syndrome (MS), as it effectively inhibits the function of stearoyl-CoA desaturase-1 (SCD1) in vivo [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3959 mL	16.9797 mL	33.9593 mL
5 mM	0.6792 mL	3.3959 mL	6.7919 mL
10 mM	0.3396 mL	1.698 mL	3.3959 mL
50 mM	0.0679 mL	0.3396 mL	0.6792 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.

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