

3,4,5-Trihydroxycinnamic acid decyl ester

Chemical Properties

CAS No. : 1770778-45-4

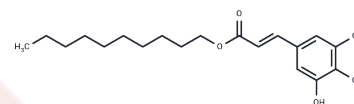
Formula: C₁₉H₂₈O₅

Molecular Weight: 336.42

Store at low temperature

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	3,4,5-Trihydroxycinnamic acid decyl ester, an effective inhibitor of lipid absorption and accumulation, exhibits anti-obesity properties and acts as a pancreatic lipase inhibitor, with an EC ₅₀ of approximately 0.9 μM.
Targets(IC ₅₀)	Apoptosis,Others,Lipase
In vitro	3,4,5-Trihydroxycinnamic acid decyl ester (30 μM) inhibits pancreatic lipase activity by approximately 92% in vitro[1]. This compound exhibits dose-dependent inhibition of pancreatic lipase between 0.1-40 μM, with an EC ₅₀ around 0.9 μM[1]. Additionally, it prevents lipid accumulation during 3T3-L1 cell differentiation, indicating potential in influencing lipid metabolism[1].
In vivo	3,4,5-Trihydroxycinnamic acid decyl ester (30-150 mg/kg; p.o.) effectively suppresses the elevation of blood triglyceride (TG) levels in 6-week-old male ddY mice administered corn oil orally, with the compound showing a dose-dependent reduction in plasma TG levels at dosages of 30 mg/kg and 150 mg/kg[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (237.8 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9725 mL	14.8624 mL	29.7247 mL
5 mM	0.5945 mL	2.9725 mL	5.9449 mL
10 mM	0.2972 mL	1.4862 mL	2.9725 mL
50 mM	0.0594 mL	0.2972 mL	0.5945 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

Masahiko Imai ,et al. Inhibitory effects of hydroxylated cinnamoyl esters on lipid absorption and accumulation. Bioorg Med Chem. 2015 Jul 1;23(13):3788-95.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481