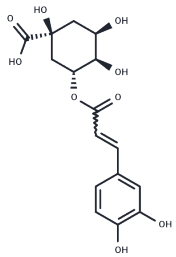
Data Sheet (Cat.No.T2805)

TargetMol

Chlorogenic Acid

Chemical Properties



CAS No. : 327-97-9

Formula: C16H18O9

Molecular Weight: 354.31

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Chlorogenic acid is a natural phenol found in honeysuckle. Chlorogenic acid has a wide range of biological activities including anti-inflammatory, antioxidant, antitumor, antimicrobial, and neuroprotective.
Targets(IC50)	Reactive Oxygen Species,HIF/HIF Prolyl-Hydroxylase,Endogenous Metabolite, Antibacterial,Influenza Virus
In vitro	**METHODS**: Human colorectal cancer cells Caco-2 were treated with Chlorogenic acid (50-1000 μM) for 24 h and cell viability was measured by MTT assay. **RESULTS**: Proliferation of Chlorogenic acid-treated cells was significantly reduced, starting at the lowest tested concentration (50 μM), with an EC50 of 758 ± 19.09 μM.[1] **METHODS**: Mouse mammary carcinoma cells 4T1 were treated with Chlorogenic acid (50-200 μM) for 24 h to enable detection of apoptosis by Flow cytometry. **RESULTS**: In the early stage, the level of apoptotic cells (Annexin V+/PI-) increased significantly from 1.14% to 0.04%, 34.56%, 40.9% and 37.46% with increasing concentrations of Chlorogenic acid (0, 50, 100, 150 and 200 μM, respectively). Whereas, in the late phase, when the cells were treated with Chlorogenic acid, the apoptotic cell ratio (Annexin V+/PI+) significantly increased from 2.34% to 2.08%, 13.45%, 17.7% and 29.06%, respectively. [2]
In vivo	**METHODS**: To assess the anti-obesity effects, Chlorogenic acid (150 mg/kg) was administered by gavage to ICR mice on a high-fat diet model (HFD) once daily for six weeks. **RESULTS**: Administration of Chlorogenic acid significantly promoted weight loss, decreased plasma lipid levels, and altered mRNA expression of genes related to adipogenesis and lipolysis in adipose tissue. [2]

Solubility Information

Solubility	Ethanol: 66 mg/mL (186.28 mM),Sonication is recommended. DMSO: 66 mg/mL (186.28 mM),Sonication is recommended. H2O: 10 mg/mL (28.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8224 mL	14.1119 mL	28.2239 mL
5 mM	0.5645 mL	2.8224 mL	5.6448 mL
10 mM	0.2822 mL	1.4112 mL	2.8224 mL
50 mM	0.0564 mL	0.2822 mL	0.5645 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.

Reference

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