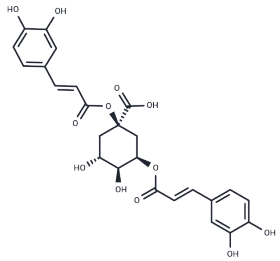
Data Sheet (Cat.No.T6S1529)

TargetMol

Cynarin

Chemical Properties



CAS No. : 30964-13-7

Formula: C25H24O12

Molecular Weight: 516.45

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	Cynarin (1,5-Dicaffeoylquinic acid) has neuroprotective, and antioxidant effects, it can inhibition of GSK3β as well as the modulation of Bcl-2/Bax.
Targets(IC50)	Antioxidant,Antiviral,Reactive Oxygen Species,Influenza Virus,ROS
In vitro	Cynarinhas protective effects against MPP~+ induces neurotoxicity of PC12 Cells, it (50 umol/L) pretreatment can inhibit the MPP+-induced up-regulation of the expression of α-synuclein mRNA and protein.1, 5-diCQA has antioxidant signaling properties that upregulate GSH synthesis by stimulating the Nrf2 pathway in astrocytes and protects them from cell death in an in vitro model of ischemia/reperfusion[1].Cynarindecreases the expression and protein levels of inducible nitric oxide synthase (iNOS) when used at a concentration of 10 μM in human coronary artery smooth muscle cells (HCASMCs) treated with a cytokine mixture[2].
Kinase Assay	The processing of an in vitro model of ischemia/reperfusion was described previously. The cultures were washed three times with deoxygenated glucose-free DMEM and placed into an anaerobic chamber with an atmosphere of 10% H2, 85% N2, and 5% CO2 for 4 h. Then the glucose-free DMEM was replaced with complete medium, and the culture plates were maintained at 37 C in a humidified 5% CO2-containing atmosphere for an additional 20 h. As a pretreatment, different concentrations of 1, 5-diCQA were added to the media before OGD for 2 h[1].

Solubility Information

Solubility	DMSO: 250 mg/mL (484.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9363 mL	9.6815 mL	19.363 mL
5 mM	0.3873 mL	1.9363 mL	3.8726 mL
10 mM	0.1936 mL	0.9681 mL	1.9363 mL
50 mM	0.0387 mL	0.1936 mL	0.3873 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

Cao X, et al. 1, 5-Dicaffeoylquinic acid-mediated glutathione synthesis through activation of Nrf2 protects against OGD/reperfusion-induced oxidative stress in astrocytes.Brain Res. 2010 Aug 6;1347:142-8
Zhang H, Liang B, Sang X, et al.Discovery of Potential Inhibitors of SARS-CoV-2 Main Protease by a Transfer Learning Method.Viruses.2023, 15(4): 891.
Xia N , Pautz A , Wollscheid U , et al. Artichoke, Cynarin and Cyanidin Downregulate the Expression of Inducible Nitric Oxide Synthase in Human Coronary Smooth Muscle Cells[J]. Molecules, 2014, 19(3):3654-3668.
Structure-based identification of HNF4α agonists: Rosmarinic acid as a promising candidate for NAFLD treatment