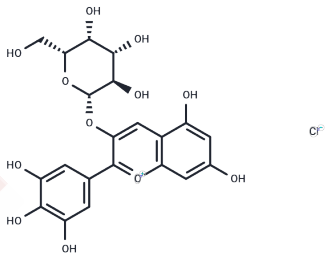
Data Sheet (Cat.No.TN6613)

TargetMol

Delphinidin-3-O-galactoside chloride

Chemical Properties



CAS No. : 28500-00-7

Formula: C21H21ClO12

Molecular Weight: 500.84

Storage: Keep away from moisture,Keep away from direct sunlight,
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	Delphinidin-3-O-galactoside chloride is a water-soluble anthocyanin with antioxidant activity and exhibits anti-obesity and hypolipidemic effects. Delphinidin-3-O-galactoside chloride is therefore used in metabolic and oxidative stress research systems to investigate lipid metabolism regulation, antioxidant enzyme activation, and flavonoid-mediated cellular stress responses in biochemical models.
Targets(IC50)	Antioxidant
In vivo	Method: In vivo treatment of EGCG-induced hepatotoxicity model in mice using Delphinidin-3-O-galactoside chloride pretreatment and evaluation of cytotoxicity, ER stress markers, and antioxidant gene expression. Result: EGCG (200–500 μM) decreased hepatocyte viability, while Delphinidin-3-O-galactoside chloride (50–500 μM) did not affect viability. D3G pretreatment time-dependently suppressed EGCG-induced cytotoxicity, restored heme oxygenase-1 and heat shock protein 70 mRNA levels, and attenuated EGCG-induced ER stress markers including CHOP expression and XBP-1 splicing.[1]

Solubility Information

Solubility	DMSO: 80 mg/mL (159.73 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9966 mL	9.9832 mL	19.9665 mL
5 mM	0.3993 mL	1.9966 mL	3.9933 mL
10 mM	0.1997 mL	0.9983 mL	1.9966 mL
50 mM	0.0399 mL	0.1997 mL	0.3993 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

Inoue H, Maeda-Yamamoto M, Nesumi A, Murakami A. Delphinidin-3-O-galactoside protects mouse hepatocytes from (-)-epigallocatechin-3-gallate-induced cytotoxicity via up-regulation of heme oxygenase-1 and heat shock protein 70. Nutr Res. 2012 May;32(5):357-64. doi:10.1016/j.nutres.2012.04.001 PubMed PMID: 22652375.
Zhu CW, Lü H, Du LL, Li J, Chen H, Zhao HF, et al. Five blueberry anthocyanins and their antioxidant, hypoglycemic, and hypolipidemic effects in vitro. Front Nutr. 2023;10:1172982. doi:10.3389/fnut.2023.1172982 PubMed PMID: 37275633; PubMed Central PMCID: PMC10232738.