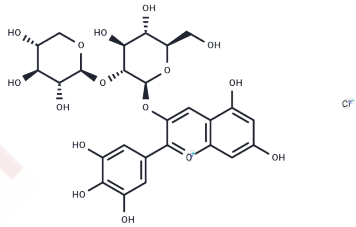
Data Sheet (Cat.No.TN1566)

TargetMol

Dp3-Sam chloride

Chemical Properties



CAS No. : 53158-73-9

Formula: C26H29ClO16

Molecular Weight: 632.95

Storage: Keep away from direct sunlight,Store at low temperature,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	Dp3-Sam chloride (Delphinidin-3-sambubioside chloride) is an anthocyanin from Hibiscus acetosella (Cranberry Hibiscus) with anti-inflammatory, antioxidant, and anticancer activities.Dp3-Sam chloride inhibits LPS-induced inflammation, and inhibits LPS-induced inflammation. Dp3-Sam chloride inhibits LPS-induced inflammatory factor release, down-regulates the NF-κB pathway, and inhibits MEK1/2-ERK1/2 signaling. Dp3-Sam chloride induces apoptosis in human leukemia cells through the mitochondrial pathway mediated by reactive oxygen species.
Targets(IC50)	Apoptosis,Antioxidant,ROS
In vitro	Dp3-Sam chloride (50-200 μM, 30 min) inhibits LPS-induced iNOS expression, suppresses the phosphorylation of ERK1/2 and MEK1/2, and downregulates the NF-κB signaling pathway in RAW264.7 cells[1]. Dp3-Sam chloride (24 h) inhibits HL-60 cells proliferation by inducing apoptosis (IC50 of 75 μM).[2] Dp3-Sam chloride (100-200 μg/mL, 24 h) decreases intracellular TG levels and lipid accumulation in oleic acid-treated HepG2 cells.[2]
In vivo	Dp3-Sam chloride (15 μmol/kg; i.p.; mouse) reduced the LPS-induced paw thickness and decreased the edema by 89.3%.[1] Dp3-Sam chloride (30 mg/kg body; oral gavage; daily for eight weeks) decreases lipid accumulation in HFD rats and decreases LPS-induced serum IL-6, MCP-1, and TNF-α levels.[3]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5799 mL	7.8995 mL	15.799 mL
5 mM	0.316 mL	1.5799 mL	3.1598 mL
10 mM	0.158 mL	0.790 mL	1.5799 mL
50 mM	0.0316 mL	0.158 mL	0.316 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

Sogo T, et al. Anti-inflammatory activity and molecular mechanism of delphinidin 3-sambubioside, a Hibiscus anthocyanin. Biofactors. 2015 Jan-Feb;41(1):58-65.
Hou DX, et al. Delphinidin 3-sambubioside, a Hibiscus anthocyanin, induces apoptosis in human leukemia cells through reactive oxygen species-mediated mitochondrial pathway. Arch Biochem Biophys. 2005 Aug 1;440(1): 101-9.
Long Q, et al. Delphinidin-3-sambubioside from Hibiscus sabdariffa. L attenuates hyperlipidemia in high fat diet-induced obese rats and oleic acid-induced steatosis in HepG2 cells. Bioengineered. 2021 Dec;12(1):3837-3849.