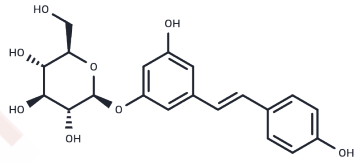
Data Sheet (Cat.No.T2938)

TargetMol

(E/Z)-Polydatin

Chemical Properties



CAS No. : 65914-17-2

Formula: C20H22O8

Molecular Weight: 390.38

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	(E/Z)-Polydatin (Polydatin), is a natural precursor and glycoside form of resveratrol with a monocrystalline structure. While it is isolated from the bark of Picea sitchensis or Polygonum cuspidatum, Polydatin may be detected in grape, peanut, hop cones, red wines, hop pellets, cocoa-containing products, chocolate products and many daily diets. Polydatin possesses anti-inflammatory, immunoregulatory, anti-oxidative and anti-tumor activities. It is shown to mediate a cytotoxic action on colorectal cancer cells by inducing cell arrest and apoptosis.
Targets(IC50)	Phospholipase
In vitro	In a study involving mice with sepsis induced by cecal ligation and puncture, polydatin (15/45/100 mg/kg) was found to inhibit the production of serum TNF-α and IL-6, the protein expression of lung cyclooxygenase-2 and inducible NO synthase isoforms, and the activation of NF-κB, thereby reducing mortality and lung injury in a dose-dependent manner. The LD50 of polydatin in mice was determined to be 1 g/kg (i.p.).
In vivo	Polydatin is a PLA2 inhibitor that reduces the expression of sPLA2-IIA mRNA and the activity of phospholipase A2. It also increases the expression of Clara cell secretory proteins, thereby mitigating lipopolysaccharide-induced lung injury.

Solubility Information

Solubility	DMSO: 151.5 mg/mL (388.08 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.12 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5616 mL	12.808 mL	25.6161 mL
5 mM	0.5123 mL	2.5616 mL	5.1232 mL
10 mM	0.2562 mL	1.2808 mL	2.5616 mL
50 mM	0.0512 mL	0.2562 mL	0.5123 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

Shiyu S, et al. BMC Cell Biol, 2011, 25, 12:31.
Li XH, et al. Mediators Inflamm, 2013, 2013, 354087.