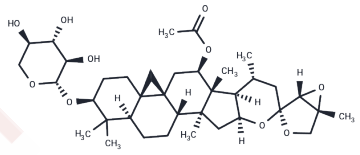
Data Sheet (Cat.No.TN1222)

TargetMol

26-Deoxyactein

Chemical Properties



CAS No. : 264624-38-6

Formula: C37H56O10

Molecular Weight: 660.83

Storage: Keep away from moisture,Store at low temperature
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	23-epi-26-Deoxyactein (27-Deoxyactein) has anti-inflammatory activity, it inhibits nitric oxide production by reducing iNOS expression without affecting activity of the enzyme. It also has anti-cancer activity, it can inhibit growth of the MCF7 human breast cancer cells and induce cell cycle arrest at G1.
Targets(IC50)	ERK,NOS,Aryl Hydrocarbon Receptor,CDK,NO Synthase
In vitro	Black cohosh rhizomes were extracted with methanol/water and fractionated by solvent-solvent partitioning to yield three fractions: hexane, ethyl acetate and water. The ethyl acetate fraction displayed the highest potency in two cell-based assays, growth inhibition and cell cycle analysis. This fraction inhibited growth of both the ER+ MCF7 and ER-MDA-MB-453 human breast cancer cell lines with IC50 values of about 20 and 10 micro g/ml, respectively. It also induced cell cycle arrest at G1 when tested at 30 micro g/ml and at G2/M at 60 micro g/ml in MCF7 cells. This suggests that the extract contains a mixture of components with the more active (or more abundant) causing G1 arrest and the less active causing G2/M arrest. We then examined specific components in this extract. The triterpene glycoside fraction obtained by polyamide column chromatography, and the specific triterpene glycosides actein, 23-epi-26-Deoxyactein and cimiracemoside A, inhibited growth of the MCF7 human breast cancer cells and induced cell cycle arrest at G1[1]

Solubility Information

Solubility	DMSO: 70 mg/mL (105.93 mM),Sonication is recommended. (< 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 (3.03 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	1.5132 mL	7.5662 mL	15.1325 mL
5 mM	0.3026 mL	1.5132 mL	3.0265 mL
10 mM	0.1513 mL	0.7566 mL	1.5132 mL
50 mM	0.0303 mL	0.1513 mL	0.3026 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

Growth inhibitory activity of extracts and purified components of black cohosh on human breast cancer cells. Breast Cancer Res Treat. 2004 Feb;83(3):221-31.