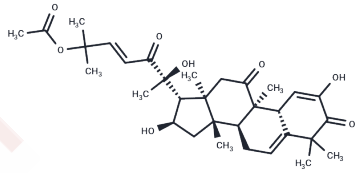
Data Sheet (Cat.No.T5S1467)

TargetMol

Cucurbitacin E

Chemical Properties



CAS No. : 18444-66-1

Formula: C32H44O8

Molecular Weight: 556.69

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	Cucurbitacin E is a natural product isolated from the climbing stem of Cucumic melo L. It significantly suppresses the activity of the cyclin B1/CDC2 complex.Cucurbitacin E has prevention of neurodegeneration, it has potent anti-proliferative, antineoplastic, anti-inflammatory and analgesic actions.
Targets(IC50)	CDK,Autophagy
In vitro	the anti-proliferation and cell cycle G2/M arrest induced by Cucurbitacin E (CuE)?in CRC cells.?MPM-2 flow cytometry tests show that CuE-treated cells accumulated in metaphase (CuE 2.5-7.5 μM).?CuE produced G2/M arrest as well as the downregulation of CDC2 and cyclin B1 expression and dissociation.?Both effects increased proportionally with the dose of CuE;?however, the inhibition of proliferation, arrest of mitosis, production of reactive oxygen species (ROS), and loss of mitochondrial membrane potential (ΔΨm) were found to be dependent on the quantity of CuE used to treat the cancer cells.?In addition, cell cycle arrest in treated cells coincided with the activation of the gene GADD45(α, β, γ).?Incubation with CuE resulted in the binding of GADD45γ to CDC2, which suggests that the delay in CuE-induced mitosis is regulated by the overexpression of GADD45γ.?CuE may have antitumor activities in established CRC[3].

Solubility Information

Solubility	DMSO: 150 mg/mL (269.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (4.49 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	1.7963 mL	8.9817 mL	17.9633 mL
5 mM	0.3593 mL	1.7963 mL	3.5927 mL
10 mM	0.1796 mL	0.8982 mL	1.7963 mL
50 mM	0.0359 mL	0.1796 mL	0.3593 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

Y-C, Hsu, T-Y, et al. Therapeutic ROS targeting of GADD45γ in the induction of G2/M arrest in primary human colorectal cancer cell lines by cucurbitacin E.[J]. Cell Death & Disease, 2014.