Web: www.taiclone.com
Tel: +886-2-2735-9682
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Cucurbitacin E

Catalog No: tcsc3817

Available Sizes

Size: 5mg

Size: 10mg

Specifications

CAS No:
18444-66-1

Formula:
$C_{32}H_{44}O_8$

Pathway:
Cell Cycle/DNA Damage;Autophagy

Target:
CDK;Autophagy

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
α-Elaterin;α-Elaterine

Observed Molecular Weight:
556.69

Product Description

Cucurbitacin E is a natural compound which from the climbing stem of *Cucumic melo L*. Cucurbitacin E significantly suppresses the activity of the **cyclin B1**/**CDC2** complex.

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IC50 & Target: Cyclin B1/CDC2 complex[1]

In Vitro: To explore the antitumor activity of Cucurbitacin E (CuE) against colorectal cancer (CRC) cells, an in vitro study is initiated in which each of the CRC cell lines is exposed to increasing doses of Cucurbitacin E (0, 2.5, 5, and 7.5 μM) over a period of 24 h. The proliferation of the Cucurbitacin E-treated cancer cells is then measured using the MTT method. Cucurbitacin E is shown to induce morphological changes in the primary colon cancer cells. Microscopic observation showed that following exposure to Cucurbitacin E (5 μM) between 6 and 24 h, the primary colon cancer cells underwent a remarkable change in morphology. Cucurbitacin E inhibits tumor growth by arresting the cell cycle in the G_2/M phase via GADD45γ gene expression and the blockage of cyclin B1/CDC2 complex in primary CRC cells[1].

In Vivo: A high fat diet mice model of metabolic syndrome (HFD-MetS) is developed to assess the role of Cucurbitacin E (CuE) on body weight and fat tissue biology. Significant decrease in body weights of HFD-MetS mice treated with Cucurbitacin E (0.5mg/kg) are found as compared to HFD-MetS mice treated with vehicle alone. Cucurbitacin E treatment reduces all fat pads weights in HFD-MetS mice. 55% reduction is observed in total fat in mice, after treatment with Cucurbitacin E in comparison to HFD-MetS mice. Abdominal obesity is strongly associated with metabolic syndrome. Central obesity is reduced to 50% after Cucurbitacin E treatment as compared to HFD MetS mice, elucidating the effectiveness of Cucurbitacin E in targeting MetS[2].