

# 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:**

$\alpha$ -Elaterin; $\alpha$ -Elaterine

**Observed Molecular Weight:**

556.69

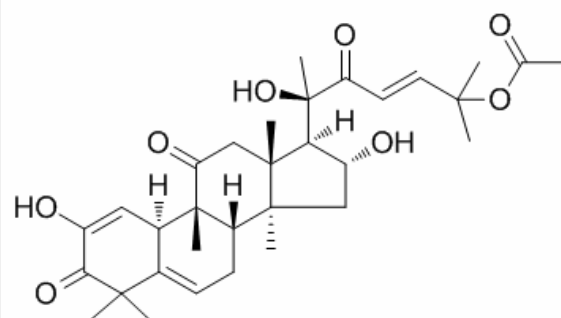
### Product Description

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

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

**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  $\mu$ M) 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  $\mu$ M) 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<sub>2</sub>/M phase via GADD45 $\gamma$  gene expression and the blockage of cyclin B1/CDC2 complex in primary CRC cells<sup>[1]</sup>.

**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<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!