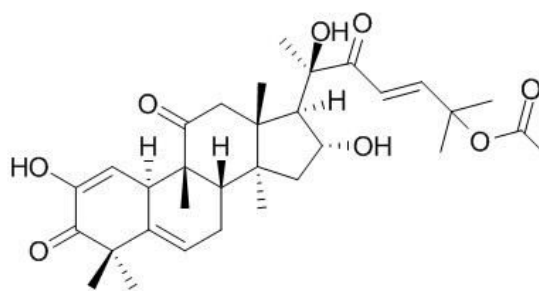


Cucurbitacin E Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Cucurbitacin E**Catalog No.:** CFN90154**Cas No.:** 18444-66-1**Purity:** >=95%**M.F:** C₃₂H₄₄O₈**M.W:** 556.69**Physical Description:** White powder**Synonyms:** 2,16alpha,20,25-tetrahydroxy-9beta-methyl-10alpha,-19-norlanosta-1,5,23(E)-triene-3,11,22-trione 25-acetate; Alpha-elaterin.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The rhizomes of *Hemsleya amabilis* Diels.

[Biological Activity or Inhibitors]

Cucurbitacin E has been identified by an empiric screening strategy as a sterol with potent growth inhibitory activity in vitro directed against prostate carcinoma explants (Ic50 of 7-50 nM in 2- to 6-day exposures), cucurbitacins are potent disruptors of cytoskeletal integrity, prostate carcinoma cells appear notably sensitive to growth inhibition by cucurbitacin E.^[1]

Cucurbitacin E inhibits tumor angiogenesis through VEGFR2-mediated Jak2-STAT3 signaling pathway.^[2]

Cucurbitacins act as feeding inhibitors for the flea beetle *Phyllotreta nemorum*, the most potent feeding inhibitors in green parts of *I. amara* towards *P. nemorum* are cucurbitacin E and I, and the concentrations of these compounds in the plant are found to be high enough to prevent feeding of the flea beetle. ^[3]

Cucurbitacin E exerts anti-inflammatory actions, it is potentially useful in treating inflammation through the inhibition of and but not ROS.^[4]

Cucurbitacin E has immunomodulatory effect.^[5]

Cucurbitacin B and E have potent anti-inflammatory and analgesic action.^[6]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[7]

Mobile phase: Acetonitrile- H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 230 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

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- [2] Dong Y M, Lu B B, Zhang X L, *et al. Carcinogenesis*, 2012, 31(4):2097-104.
- [3] Nielsen J K, Larsen L M, Sørensen H. *Phytochemistry*, 1977, 16(10):1519-22.
- [4] Abdelwahab S I, Hassan L E, Sirat H M, *et al. Fitoterapia*, 2011, 82(8):1190-7.
- [5] Attard E, Brincat M P, Cuschieri A. *Fitoterapia*, 2005, 76(5):439-41.
- [6] Peters R R, Farias M R, Ribeiro-Do-Valle R M. *Planta Med.*, 1997, 63(63):525-8.
- [7] Kaya G I, Melzig M F.. *Pharmazie*, 2009, 63(12):851-3.

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