Natural Products

ChemFaces

Echinocystic acid Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Echinocystic acid

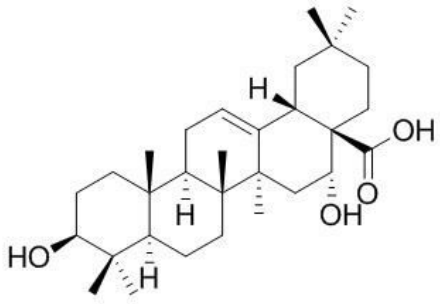
Catalog No.: CFN98812

Cas No.: 510-30-5

Purity: >=98%

M.F: $C_{30}H_{48}O_4$

M.W: 472.7



Physical Description: Powder

Synonyms: (3β,16α)-3,16-dihydroxyolean-12-en-28-oic acid;

(3beta,5xi,9xi,16beta,18xi)-3,16-dihydroxyolean-12-en-28-oic acid.

[Intended Use]

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

[Source]

The barks of *Albizzia julibrissin Durazz.*

[Biological Activity or Inhibitors]

Echinocystic acid has anti-inflammatory effects, it can concentration-dependently inhibit lipopolysaccharide-induced inducible nitric oxide synthase expression at the protein level and inducible nitric oxide synthase, tumor necrosis factor-α, and interleukin-6 expression at the mRNA level, and inhibit lipopolysaccharide-induced iNOS promoter binding activity.[1]

Echinocystic acid induces apoptosis in HL-60 cells through ROS-independent mitochondrial dysfunction pathway.[2]

Echinocystic acid has a cardioprotective effect in rat models with acute myocardial ischemia induced by isoproterenol and vasopressin. [3]

Orally administered lancemaside A may be metabolized to echinocystic acid, which may be absorbed into the blood and ameliorate memory and learning deficits by inhibiting AChE activity and inducing BDNF and p-CREB expressions.[4]

Echinocystic acid displays substantial inhibitory activity on HCV entry.[5]

Echinocystic acid may exert hypolipidemic effect by inhibiting the activity of acyl-CoA:cholesterol acyltransferase (ACAT) and diacylglycerol acyltransferase (DGAT).[6]

Echinocystic acid can prevent reduction of bone mass and strength and improve the cancellous bone structure and biochemical properties in old female ovariectomy (OVX) rats, it may serve as a new candidate or a leading compound for anti-osteoporosis.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: Acetonitrile-H2O=70:30 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 215 nm.

[Storage]

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

[References]

[1] Ryu S, Shin J S, Jung J Y, *et al. Planta Med., 2013, 79(12):1031-7.*

[2] Tong X, Lin S, Fujii M, *et al. Cancer Lett., 2004, 212(1):21-32.*

[3] Wu J, Li J, Zhu Z, *et al. Fitoterapia, 2010, 81(1):8-10.*

[4] Jung I H, Jang S E, Joh E H, *et al. Phytomedicine.,2012,15;20(1):84-8.*

[5] Wang H, Wang Q, Xiao S L, *et al. Eur. J. Med. Chem., 2013, 64(6):160-8.*

[6] Han L, Lai P, Du J R. *Evid. Based. Complement Alternat. Med. ,2014;2014:823154.*

[7] Deng Y, Kang W, Zhao J, *et al. PLoS One, 2015, 10(8): e0136572.*

[8] Jia Y, Bao W F, Liu D W. *Journal of Shenyang Pharmaceutical University, 2004, 21(5): 361-3.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com