Natural Products

ChemFaces

Emodin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Emodin

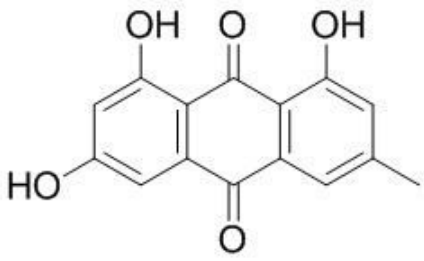
Catalog No.: CFN98834

Cas No.: 518-82-1

Purity: 98%

M.F: $C_{15}H_{10}O_5$

M.W: 270.2



Physical Description: Yellow powder

Synonyms:1,3,8-Trihydroxy-6-methyl-9,10-anthracenedione;Frangula-emodin;Schuttgel b;1,3,8-Tri-hydroxy-6-methyl-anthra-quinone.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Care and daily chemicals;
6. Others.

[Source]

The root of *Rheum palmatum L.*

[Biological Activity or Inhibitors]

Emodin, a natural anthraquinone derivative isolated from Rheum palmatum L., exhibits anti-cancer effect on several human cancers such as liver cancers and lung cancers, treatment with 50 microM emodin resulted in a pronounced release of cytochrome c, activation of caspase-2, -3, and -9, and apoptosis in human lung adenocarcinoma A549 cells. [1]

Emodin has a strong antimicrobial activity and anti-virus effect , can inhibit HBV DNA replication and HBsAg secretion in HepG2.2.15 cells, may be a new modality to treat hepatitis B infection. [2]

Emodin significantly inhibits 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced in vitro invasion of human cancer cells including HSC5 and MDA-MB-231 cells, and inhibits the invasiveness of human cancer cells by suppressing MMP-9 expression through inhibiting AP-1 and NF-kappaB signaling pathways.[3]

[Solvent]

DMSO, Ethyl Acetate, Methanol, Ethanol.

[HPLC Method][4]

Mobile phase: Methanol - 0.1% Phosphoric acid: Acetic acid =88:12;

Flow rate: 0.8 ml/min;

Column temperature: Room temperature;

The wave length of determination: 220 nm.

[Storage]

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

[References]

[1] Su Y T, Chang H L, Shyue S K, *et al. Biochem. Pharmacol., 2005, 70(2):229-41.*

[2] Shuangsuo D, Zhengguo Z, Yunru C, *et al. Medical Science Monitor International Medical Journal of Experimental & Clinical Research, 2006, 12(9):302-6.*

[3] Huang Q, Shen H M, Ong C N. *Biochem. Pharmacol., 2004, 68(2):361-71.*

[4] Shi Y B, Shi Y P, Yang Y B, *et al. Chromatographia, 2007, 65(9-10):601-6.*

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