

Coumestrol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Coumestrol

Catalog No.: CFN96040

Cas No.: 479-13-0

Purity: >=95%

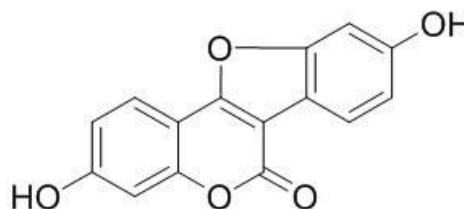
M.F: C₁₅H₈O₅

M.W: 268.2

Physical Description: Yellow powder

Synonyms: 3,9-Dihydroxy-6H-benzofuro(3,2-c)(1)benzopyran-6-one;

3-Benzofurancarboxylic acid, 2-(2,4-dihydroxyphenyl)-6-hydroxy-, delta-lactone (6CI).



[Intended Use]

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

[Source]

The herbs of *Erythrina arborescens*.

[Biological Activity or Inhibitors]

Coumestrol, a naturally occurring phytoestrogen , is an antagonist of the nuclear receptor PXR (NR1I2).^[1]

Exposure to coumestrol may modulate estrogen receptor beta (ERbeta)-dependent processes by acting as an anti-estrogen at ERbeta, but results from cell transfection assays which suggest an estrogenic activity of coumestrol on ERbeta;indicating that the mode of action may be tissue specific, or that metabolism of dietary coumestrol may alter its effects.^[2]

The phytoestrogen coumestrol has estrogenic actions on peripheral reproductive tissues, yet it has anti-estrogenic actions in the brain and pituitary and that ERalpha mediates these effects. ^[3]

Coumestrol has an inhibitory effect on the differentiation of osteoclasts, at least partially via ERK1/2 pathway.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: 0.1% Acetic acid in water- Acetonitrile,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Wang H, Li H, Moore L B, *et al. Mol. Endocrinol.*, 2008, 22(4):838-57.

- [2] Patisaul H B, Whitten P L, Young L J. *Mol. Brain Res.* 1999, 67(1):165-71.
- [3] Jacob D A, Temple J L, Patisaul H B, *et al. Exp. Biol. Med.*, 2001, 226(4):301-6.
- [4] Kanno S, Hirano S, Kayama F. *Toxicology*, 2004, 203(1-3):211-20.
- [5] Yuk H J, Jin H L, Curtis-Long M J, *et al. Food Chem.*, 2011, 126(3):1057-63.

[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