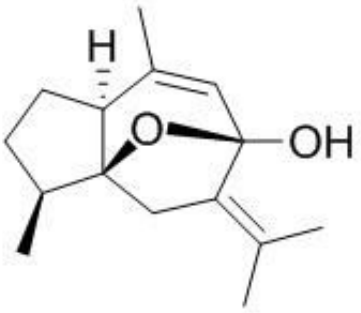
Natural Products

ChemFaces

Curcumenol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Curcumenol

Catalog No.: CFN92614

Cas No.: 19431-84-6

Purity: > 98%

M.F: $C_{15}H_{22}O_2$

M.W: 234.3

Physical Description: Powder

Synonyms:(3S,3alphaS,6R,8alphaS)-1,2,3,4,5,8alpha-Hexahydro-3,8-dimethyl-5-(1-methylethylidene)-6H-3alpha,6-epoxyazulen-6-ol.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The rhizomes of *Curcuma zedoaria.*

[Biological Activity or Inhibitors]

Curcumenol, one of the major components of Zedoary turmeric oil, has been widely used to treat cancer and inflammation; as an antibiotic or anticancer drug, curcumenol may be safely used without inducing metabolic drug-drug interaction through P450 inhibition.[1]

Curcumenol has neuroprotection and anti-inflammatory activities, it can diminish the proinflammatory mediators and the expression of the regulatory genes in LPS-stimulated BV-2 by inhibiting Akt-dependent NF-κB activation and downregulation of Akt and p38 MAPKs signaling; it can suppress neuroinflammation induced by LPS in BV-2 neuronal cell model.[2,3]

Curcumenol shows inhibitory activity against estrogen receptor alpha (ERα), has the potential to be used as drugs or adjuvant drugs in breast cancer therapy.[4]

Curcumenol has hepatoprotective activity, has inhibition to human liver cytochrome P450 enzymes.[5]

Curcumenol can induce the differentiation of K562 cell line, the effects of curcumenol on induction of differ- entiation of K562 cell line may be due to its prevention of chromosome damage and decreasing of bcr/abl gene mRNA expression.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase:Acetonitrile -H2O, gradient eiution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 210 nm.

[Storage]

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

[References]

[1] Sun D X, Fang Z Z, Zhang Y Y, *et al. Phytother. Res., 2010, 24(8):1213–6.*

[2] Lo J Y, Kamarudin M N, Hamdi O A, *et al. Food Funct., 2015, 6(11):3550-9.*

[3] Kadir H B A. *University of Malaya, 2014,1 ,25 .*

[4] Mustarichie R, Levitas J, Arpina J. *Medical Journal of Indonesia, 2014, 23(1):15-24.*

[5] Song D X, Fang Z Z, Zhang Y Y, *et al. North American Regional International Society for the Study of Xenobiotics Meeting. 2009.*

[6] Lin H, Li X H. *Progress in Modern Biomedicine, 2007, 112(B4):1-10.*

[7] Pan Y, Zhang Y, Xiang Z, *et al. Chinese Traditional Patent Medicine, 2013, 35(2):252-5.*

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