[ Product Information ]

Name: 6-Gingerol
Catalog No.: CFN99931
Cas No.: 23513-14-6
Purity: > 98%
M.F: C_{17}H_{26}O_{4}
M.W: 294.40

Physical Description: Oil

Synonyms: 3-Decanone, 6-Gingerol, 5-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-, (5S)-, 5-Hydroxy-1-(4-hydroxy-3-methoxyphenyl)-3-decanone.

[ Intended Use ]

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

[ Source ]
The rhizome of Zingiber officinale Roscoe.

**[Biological Activity or Inhibitors]**

6-Gingerol, a natural product of ginger, has been known to possess anti-tumorigenic and pro-apoptotic activities, it stimulates apoptosis through upregulation of NAG-1 and G1 cell cycle arrest through downregulation of cyclin D1, multiple mechanisms appear to be involved in 6-gingerol action, including protein degradation as well as β-catenin, PKCε, and GSK-3β pathways. [1]

6-Gingerol and 6-shogaol may both exert anti-invasive activity against hepatoma cells through regulation of MMP-9 and TIMP-1, inhibition of the MAPK and PI3k/Akt pathways and NF-κB and STAT3 activities to suppress expression of MMP-2/-9 and uPA and block angiogenesis, and that 6-shogaol could further regulate urokinase-type plasminogen activity. [2,3]

6-Gingerol can repress quorum sensing (QS)-induced genes, specifically those related to the production of virulence factors, inducing exoprotease, rhamnolipid, and pyocyanin. [4]

6-Gingerol has antioxidant and anti-inflammatory activities, it induces genotoxicity probably by oxidative stress; lysosomal and mitochondrial damage were observed in 6-gingerol-induced toxicity. [5]

6-Gingerol has anti-adipogenic activity, can effectively suppress adipogenesis and that it exerts its role mainly through the significant down-regulation of PPARγ and C/EBPα and subsequently inhibits FAS and aP2 expression, also inhibit differentiation in 3T3-L1 cells by attenuating the Akt/GSK3β pathway. [6]

**[Solvent]**

Chloroform, Dichloromethane, DMSO, Acetone.

**[HPLC Method]** [7]

Mobile phase: Acetonitrile-H2O=40:60;

Flow rate: 1.0 ml/min;
Column temperature: 25 °C;

The wavelength of determination: 280 nm.

[ Storage ]

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

[ References ]


[ 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