

## Licochalcone C Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Licochalcone C

**Catalog No.:** CFN99577

**Cas No.:** 144506-14-9

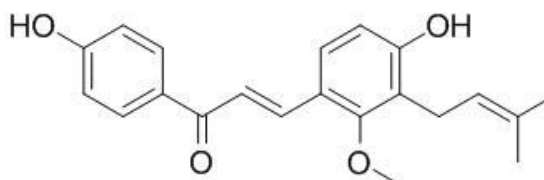
**Purity:** >=98%

**M.F:** C<sub>21</sub>H<sub>22</sub>O<sub>4</sub>

**M.W:** 338.40

**Physical Description:** Yellow powder

**Synonyms:** 4,4'-Dihydroxy-2-Methoxy-3-prenylchalcone; 2-Propen-1-one, 3-[4-hydroxy-2-methoxy-3-(3-methyl-2-buten-1-yl)phenyl]-1-(4-hydroxyphenyl)-, (2E)-.



### [ Intended Use ]

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

### [ Source ]

The roots of *Glycyrrhiza glabra* L.

### [ Biological Activity or Inhibitors ]

Licochalcone C and licochalcone A exhibit inhibitory activity with cytotoxicity in a rat basophilic leukemia cell line, RBL-2H3.<sup>[1]</sup>

Licochalcone C has protective effect against myocardial ischemia/reperfusion injury in rats via antioxidant, anti-inflammatory, and anti-apoptotic activities; pretreatment with licochalcone C can significantly improve the recovery of left ventricular developed pressure (LVDP) and  $\pm dp/dt_{max}$ , and increase the levels of SOD and GSH/GSSG ratio.<sup>[2]</sup>

Licochalcone C can induce T24 cell apoptosis in a concentration dependent manner; licochalcone C treatment can reduce the levels of the anti apoptotic mRNAs (Bcl-2, Bcl-w and Bcl-XL) and increase expression of the pro apoptotic mRNAs (Bax and Bim), the Bcl-2 family inhibitor (ABT-737) can reduce apoptosis induced by licochalcone C in T24 cells; demonstrates that licochalcone C may be a potential adjuvant therapeutic agent for bladder cancer. <sup>[3]</sup>

Licochalcone C shows potent antioxidant properties and inhibition of bacterial growth and cellular respiration, it attenuates the lipopolysaccharide and interferon-gamma induced inflammatory response by decreasing the expression and activity of inducible nitric oxide synthase and modulating the antioxidant network activity of superoxide dismutase, catalase, and glutathione peroxidase activity, it also inhibits NADH-cytochrome C reductase in the membrane fraction of *Micrococcus luteus*.<sup>[4]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[5]</sup>**

Mobile phase: Methanol -H<sub>2</sub>O=65:35 ;

Flow rate: 1.0 ml/min;

Column temperature: 35 °C;

The wave length of determination: 345 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Tanifuji S, Aizu-Yokota E, Funakoshi-Tago M, *et al. Int. Immunopharmacol.*, 2010, 10(7):769-76.
- [2] Zhou M, Liu L, Wang W, *et al. Life Sci.*, 2015, 132:27-33.
- [3] Wang P, Yuan X, Wang Y, *et al. Mol. Med. Rep.*, 2015, 12(5):7623-8.
- [4] Wang Z, Cao Y, Paudel S, *et al. Arch. Pharm. Res.*, 2013, 36(12):1432-6.
- [5] Li T, Wang T. *China Journal of Chinese Materia Medica*, 1999, 24(1):44-5, 64.

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