

Tetrahydrocurcumin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Tetrahydrocurcumin

Catalog No.: CFN90583

Cas No.: 36062-04-1

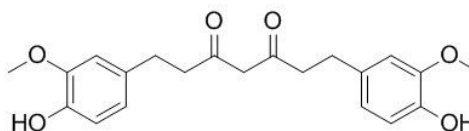
Purity: > 98%

M.F: C₂₁H₂₄O₆

M.W: 372.41

Physical Description: Powder

Synonyms: 1,7-Bis(4-hydroxy-3-methoxyphenyl)heptane-3,5-dione.



[Intended Use]

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

[Source]

The rhizomes of *Curcuma longa* L.

[Biological Activity or Inhibitors]

Tetrahydrocurcumin (THC), one of the major metabolites of curcumin, has antioxidative

activity, it has inhibitory effects on the lipid peroxidation of erythrocyte membrane ghosts induced by tertbutylhydroperoxide.^[1]

Tetrahydrocurcumin exhibits variable anti-inflammatory and anti-proliferative activities, which does not correlate with its ability to modulate the ROS status.^[2]

Tetrahydrocurcumin can ameliorate oxidative stress-induced renal injury in mice. ^[3]

Tetrahydrocurcumin, curcumin and dihydroxytetrahydrocurcumin exhibit significant inhibitory effects on 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced O₂-generation in differentiated HL-60 cells.^[4]

Tetrahydrocurcumin has protective action against chloroquine or erythromycin estolate-induced hepatotoxicity.^[5,6]

Tetrahydrocurcumin expresses its anti-angiogenesis without any cytotoxic activities to HepG2 cells even at the highest doses, suggests that anti-angiogenic properties of it represent a common potential mechanism for its anti-cancer actions.^[7]

Combination of tetrahydrocurcumin and chlorogenic acid can potentially ameliorate lipid abnormalities in experimental type 2 diabetes.^[8]

Tetrahydrocurcumin and rutin have cardioprotective effect on lipid peroxides and antioxidants in experimentally induced myocardial infarction in rats.^[9]

[Solvent]

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

[HPLC Method]^[10]

Mobile phase: Acetonitrile-Methanol-H₂O (adjusted to pH 3.0), gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

[Storage]

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

[References]

- [1] Sugiyama Y, Kawakishi S, Osawa T. *Biochem. Pharmacol.*, 1996, 52(4):519-25.
- [2] Sandur S K, Pandey M K, Sung B, *et al. Carcinogenesis*, 2007, 28(8):1765-73.
- [3] Okada K, Wangpoengtrakul C, Tanaka T, *et al. J. Nutr.*, 2001, 131(8):2090-5.
- [4] Nakamura Y, Ohto Y, Murakami A, *et al. Cancer Sci.*, 1998, 89(4):361-70.
- [5] Pari L, Murugan P. *Pharmacol. Res.*, 2004, 49(49):481-6.
- [6] Pari L, Amali D R. *J. Pharm. Pharmaceut. Sci.*, 2005, 8(1):115-23.
- [7] Yoysungnoen P, Wirachwong P, Changtam C, *et al. World J. Gastroentero.* 2008, 14(13):2003-9.
- [8] Karthikesan K, Pari L, Menon V P. *Chem. Biol. Interact.*, 2010, 188(3):643-50.
- [9] Ali M, Mudagal M, Goli D. *Pharmazie*, 2009, 64(2):132-6.
- [10] Anisha A. D'Souza, Padma V. Devarajan. *J. Liq. Chromatogr. R. T.*, 2013, 36(13): 1788-801.

[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