**Natural Products** 



# **10-Shogaol Datasheet**

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

#### [ Product Information ]

Name: 10-Shogaol

Catalog No.: CFN92300

Cas No.: 36752-54-2

**Purity:** >98%

 $M.F: C_{21}H_{12}O_3$ 

M.W: 332.48

Physical Description: Powder

**Synonyms:**1-(4-Hydroxy-3-methoxyphenyl)-4-tetradecen-3-one.

#### [ Intended Use ]

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

# [Source]

The rhizomes of Zingber officinale Rosc.

#### [Biological Activity or Inhibitors]

10-Shogaol is the only nonpungent compound among the gingerols and shogaols, suggesting its usefulness as a functional ingredient in food.<sup>[1]</sup>

10-Shogaol, as an antioxidant for human skin cell growth and a migration enhancer with potential to be a novel wound repair agent, it can enhance growth factor production in transforming growth factor- $\beta$  (TGF- $\beta$ ), platelet derived growth factor- $\alpha$   $\beta$  (PDGF- $\alpha$   $\beta$ ) and vascular endothelial growth factors (VEGF) of both cells; it also promotes human normal epidermal keratinocytes and dermal fibroblasts cell growths.<sup>[2]</sup>

Shogaols are metabolized extensively in mouse and human to form thiol-conjugated metabolites and glutathione (GSH) might play an important role in the cancer-preventive activity of ginger. <sup>[3]</sup>

#### [Solvent]

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

#### [ HPLC Method ]<sup>[4]</sup>

Mobile phase: Acetonitrile- H2O, gradient elution ; Flow rate: 0.8 ml/min; Column temperature: 25 °C; The wave length of determination: 280 nm.

# [Storage]

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

# [References]

- [1] Auffret M, Béné J, Gautier S, et al. Nutr. Neurosci., 2013, 9(3-4):169-78.
- [2] Chen C Y, Cheng K C, Chang A Y, et al. Int. J. Mol.Sci., 2012, 13(2):1762-77.
- [3] Chen H, Soroka D N, Hu Y, et al. Mol. Nutr. Food Res., 2013, 57(3):447–58.
- [4] Zhang L, Wang Z M, Wang W H, et al. China Journal of Chinese Materia Medica, 2008,

33(9):1010-3.

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