

## Zingerone Datasheet

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

### [ Product Information ]

**Name:** Zingerone

**Catalog No.:** CFN99702

**Cas No.:** 122-48-5

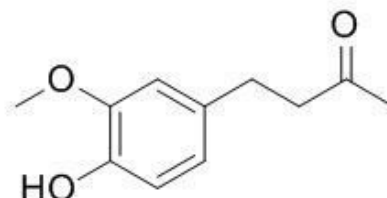
**Purity:** >=98%

**M.F:** C<sub>11</sub>H<sub>14</sub>O<sub>3</sub>

**M.W:** 194.23

**Physical Description:** Powder

**Synonyms:**[0]-Paradol;3-Methoxy-4-hydroxybenzylacetone;4-(4-hydroxy-3;4-(4-hydroxy-3-methoxyphenyl)-2-butanon;Gingerone.



### [ 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 *Zingiber officinale* Rosc.

## **[ Biological Activity or Inhibitors ]**

Zingerone, a major component found in ginger root, has been known as anti-mutagenic and anti-carcinogenic activities that are often associated with its anti-oxidative and anti-inflammatory activities; zingerone has not only the antioxidant effect by constitutive suppression of ROS, but also anti-inflammatory effects by suppression of nuclear factor (NF)-kappaB activation in aged rat; zingerone treatment can suppress gene activation of pro-inflammatory enzymes, COX-2 and iNOS, which are upregulated with aging through NF-kappaB activation and IKK/MAPK signaling pathway. <sup>[1]</sup>

Zingerone attenuates lipopolysaccharide-induced acute lung injury in mice. <sup>[2]</sup>

Zingerone has the potential in mitigating radiation-induced mortality and cytogenetic damage, which may be attributed to inhibition radiation-induced decline in the endogenous antioxidant levels and scavenging of radiation-induced free radicals. <sup>[3]</sup>

Zingerone can inhibit biofilm formation and improve antibiofilm efficacy of ciprofloxacin against *Pseudomonas aeruginosa* PAO1, it could as potential phytotherapeutic agent which in future can be employed to formulate preventive strategies against biofilm associated infections caused by *P.aeruginosa*. <sup>[4]</sup>

Zingerone can be recommended as a supplement to shrimp feed to increase growth, immunity, and disease resistance against the pathogen, *V.alginolyticus*, use of zingerone as appetizer and immunostimulant in shrimp is promising. <sup>[5]</sup>

Zingerone appears to produce less lipolytic actions in adipocytes derived from the High Fat Diet (HFD)-fed rats, it may has anti-obesity actions. <sup>[6]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ] <sup>[7]</sup>**

Mobile phase: Methanol -H<sub>2</sub>O=47:53 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 280 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Kim M K, Chung S W, Kim D H, *et al. Exp. Gerontol.*, 2010, 45(6):419-26.
- [2] Xie X, Sun S, Zhong W, *et al. Int. Immunopharmacol.*, 2014, 19(1):103-9.
- [3] Rao B N, Rao B S S, Aithal B K, *et al. Mutat. Res.*, 2009, 677(2):33-41.
- [4] Kumar L, Chhibber S, Harjai K. *Fitoterapia*, 2013, 90(20):73-8.
- [5] Chang Y P, Liu C H, Wu C C, *et al. Fish Shellfish Immun.*, 2012, 32(2):284-90.
- [6] Pulbutr P, Thunchomnang K, Lawa K, *et al. Int.J.Pharmacol.*, 2011, 7(5):629-34.
- [7]Huang XT, Mi SQ, Wang N. *Traditional Chinese Drug Research & Clinical Pharmacology*, 2009, 20(5):432-5.

## **[ Contact ]**

**Address:**

S5-3 Building, No. 111, Dongfeng Rd.,  
Wuhan Economic and Technological Development Zone,  
Wuhan, Hubei 430056,  
China

**Email:** [info@chemfaces.com](mailto:info@chemfaces.com)

**Tel:** +86-27-84237783

**Fax:** +86-27-84254680

**Web:** [www.chemfaces.com](http://www.chemfaces.com)

**Tech Support:** [service@chemfaces.com](mailto:service@chemfaces.com)