

## Galanolactone Datasheet

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

### [ Product Information ]

**Name:** Galanolactone

**Catalog No.:** CFN99258

**Cas No.:** 115753-79-2

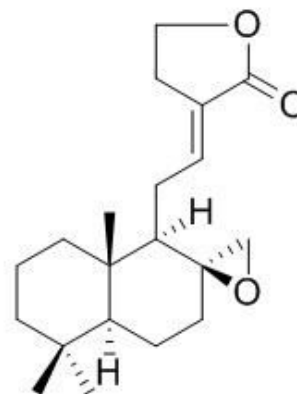
**Purity:** > 98%

**M.F:** C<sub>20</sub>H<sub>30</sub>O<sub>3</sub>

**M.W:** 318.5

**Physical Description:** Powder

**Synonyms:** (3E)-3-[2-[(1R,2S,4aS,8aS)-5,5,8a-trimethyl-1-spiro[3,4,4a,6,7,8-hexahydro-1H-naphthalene-2,2'-oxirane]yl]ethylidene]-2-oxolanone.



### [ Intended Use ]

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

### [ Source ]

The rhizomes of *Zingiber officinale* Roscoe.

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

Galanolactone, a diterpenoid isolated from ginger, has anti-5-HT effect with a pIC<sub>50</sub> value 4.93, is related to antagonism of 5-HT<sub>3</sub> receptors; it is a 5HT<sub>3</sub> receptor antagonist, it might increase the release of acetylcholine to act as memory enhancer, it is effective in improving both spatial working memory and long term memory.<sup>[1,2]</sup>

Galanolactone exerts anti-obesity effect through downregulation of adipogenic transcription factors and adipogenic marker genes.<sup>[3]</sup>

Galanolactone has some anti-tumor effect and antifungal activity.<sup>[4]</sup>

## **[ Solvent ]**

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

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

Mobile phase: Acetonitrile-0.05%Phosphoric acid H<sub>2</sub>O,gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 264 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Huang Q R, Iwamoto M, Aoki S, *et al. Chem. Pharm. Bull.*, 1991, 39(2):397-9.

[2] Pal A, Sahu P K, Juadi S, *et al. Pharmacologyonline*, 2010, 3:102-11.

[3] Ahn E K, Oh J S. *J. Korean Soc. App. Bi.*, 2012, 55(1):63-8.

[4] Shi Yujun. *Modern drugs and clinical*, 1989 (2).

[5] Zhao X D, Chen X H, Geng L L, *et al. Journal of Pharmaceutical Analysis*, 2009 (12): 2036-9.

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