

## Ergosterol peroxide Datasheet

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

### [ Product Information ]

**Name:** Ergosterol peroxide

**Catalog No.:** CFN98035

**Cas No.:** 2061-64-5

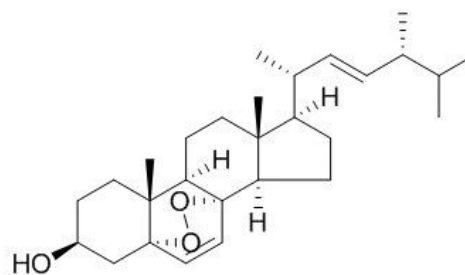
**Purity:** > 98%

**M.F:** C<sub>28</sub>H<sub>44</sub>O<sub>3</sub>

**M.W:** 428.7

**Physical Description:** Cryst.

**Synonyms:** Ergosterol-5,8-peroxide; 5 $\alpha$ ,8 $\alpha$ -Peroxyergosterol; (22E)-5 $\alpha$ ,8 $\alpha$ -Epidioxy-5 $\alpha$ -ergosta-6,22-dien-3 $\beta$ -ol.



### [ Intended Use ]

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

### [ Source ]

The herbs of *Isodon eriocalyx*.

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

Ergosterol peroxide(EPO) is a major antitumor sterol produced by edible or medicinal mushrooms, the bacterial metabolites of EPO play a significant role in its cytotoxic activity against human colorectal cancer cells. [1]

Ergosterol peroxide can exert antitumor activity in multiple myeloma U266 cells partly with antiangiogenic activity targeting JAK2/ STAT3 signaling pathway as a potent cancer preventive agent for treatment of multiple myeloma cells.[2]

Ergosterol peroxide exhibits anti-cancer activity by down-regulation of the  $\beta$ -catenin pathway in colorectal cancer.[3]

Ergosterol peroxide has antiviral action.[4]

Ergosterol peroxide can stimulate Foxo3a activity by inhibiting pAKT and c-Myc and activating pro-apoptotic protein Puma and Bax to induce cancer cell death.[5]

## **[ Solvent ]**

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

## **[ HPLC Method ]**<sup>[6]</sup>

Mobile phase: Methanol,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 282 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Lee J S, Ma C M, Park D K, *et al. Biol. Pharm. Bull.*, 2008, 31(5):949-54.

[2] Rhee Y H, Jeong S J, Lee H J, *et al. BMC Cancer*, 2012, 12(1):1-11.

[3] Kang J H, Jang J E, Mishra S K, *et al. J. Ethnopharmacol.*, 2015, 173:303-12.

[4] Lindequist U, Lesnau A, Teuscher E, *et al. Pharmazie*, 1989, 44(44):579-80.

[5] Li X, Wu Q, Bu M, *et al. Oncotarget*, 2016.

[6]Zhang L,Wang Y J, Ding A W, *Jiangsu Traditional Chinese Medicine*.2009(06):52-3.

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