

## beta-Thujaplicin Datasheet

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

### [ Product Information ]

**Name:** beta-Thujaplicin

**Catalog No.:** CFN93995

**Cas No.:** 499-44-5

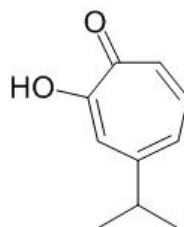
**Purity:** >=98%

**M.F:** C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>

**M.W:** 164.2

**Physical Description:** Powder

**Synonyms:** Hinokitiol; 2-Hydroxy-6-(propan-2-yl)cyclohepta-2,4,6-trien-1-one.



### [ Intended Use ]

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

### [ Source ]

The herbs of *Platycladus orientalis*.

### [ Biological Activity or Inhibitors ]

beta-Thujaplicin can inhibit ultraviolet B-induced apoptosis in keratinocytes and strongly suggest that the inhibitory mechanism is due to the antioxidant activity of metallothionein induced by the agent.<sup>[1]</sup>

beta-Thujaplicin has antibacterial effect , it can inhibit all *Staphylococcus aureus* isolates with MICs of 1.56-3.13 mg/L.<sup>[2]</sup>

beta-Thujaplicin has antifungal activity against 51 *Malassezia pachydermatis* strains, it is an inexpensive and safe treatment with anti-inflammatory and deodorant effects that can be recommended as an effective remedy for canine otitis externa. <sup>[3]</sup>

beta-Thujaplicin has ability to extract mitochondrial Mg<sup>++</sup> and the prevention of the effects of beta-thujaplicin by an excess of Mg<sup>++</sup> in the medium, suggests a common mode of action of beta-thujaplicin as a lipophilic chelator of Mg<sup>++</sup> and other divalent cations.<sup>[4]</sup>

## **[ Solvent ]**

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

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

Mobile phase: Acetonitrile-0.1%Phosphoric acid H<sub>2</sub>O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 50 °C;

The wave length of determination: 230 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Baba T, Nakano H, Tamai K, *et al.* *J. Invest. Dermatol.* 1998, 110(1):24-8.

[2] Arima Y, Nakai Y, Hayakawa R, *et al.* *J. Antimicrob. Chemoth.*, 2003, 51(1):113-22.

[3] Nakano Y, Wada M, Tani H, *et al.* *J. Vet. Med. Sci.*, 2005, 67(12):1243-7.

[4] Böhme G, Schönfeld P, Küster U, *et al. Acta Biologica Et Medica Germanica*, 1980, 39(11-12):1153-63.

[5] Daniels C R, Russell J H. *J. Chromatogr. Sci.*, 2007, 45(5):281-5.

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