

## Verminoside Datasheet

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

### [ Product Information ]

**Name:** Verminoside

**Catalog No.:** CFN98809

**Cas No.:** 50932-19-9

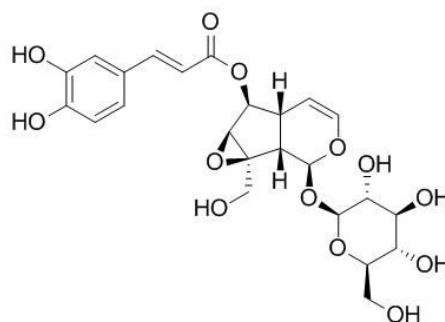
**Purity:** > 98%

**M.F:** C<sub>24</sub>H<sub>28</sub>O<sub>13</sub>

**M.W:** 524.5

**Physical Description:** Powder

**Synonyms:** (-)-Verminoside; Caffeoyl catalpol; Catalpol 6-caffeate.



### [ Intended Use ]

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

### [ Source ]

The barks of *Kigelia pinnata*.

### [ Biological Activity or Inhibitors ]

Verminoside(VMS) and verbascoside are natural compounds present in used in traditional medicine, they exhibit several biological activities including anti-inflammatory, anti-bacterial and anti-properties;they induce genotoxicity on human lymphocytes, involved with PARP-1 and p53 proteins;the potential applications of these compounds as ingredients in pharmaceutical formulations and cosmetics.<sup>[1]</sup>

Verminoside shows significant anti-inflammatory effects, can inhibit both iNOS expression and NO release in the LPS-induced J774.A1 macrophage cell line; it does not affect cell viability in vitro either in cells grown in monolayers (ML) or in the reconstituted human epidermis (RHE, 3D) model; it neither causes release of pro-inflammatory mediators or histomorphological modification of RHE.<sup>[2]</sup>

Verminoside attenuates intracellular ROS and stress (oxidative and thermal) level promoting longevity, the longevity and stress modulation can be attributed to VMS-mediated alterations in daf-16 expression which regulates insulin signaling pathway; this study opens doors for development of phytomolecule-based therapeutics for prolonging life span and managing age-related severe disorders.<sup>[3]</sup>

### **[ Solvent ]**

Pyridine, Methanol, Ethanol, Hot water, DMSO, etc.

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

Mobile phase: Acetonitrile-1% Formic acid H<sub>2</sub>O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 254 nm..

### **[ Storage ]**

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

### **[ References ]**

- [1] Santoro A, Bianco G, Picerno P, *et al. Toxicol. Lett.*, 2008, 178(2):71-6.
- [2] Picerno P, Autore G, Marzocco S, *et al. J. Nat. Prod.*, 2005, 68(11):1610-4.
- [3] Pant A, Asthana J, Yadav A K, *et al. Free Radical. Res.*, 2015, 49(11):1-33.
- [4] V. Nagavani, T. Raghava Rao. *Advan. Biol. Res.*, 2010,4 (3): 159-68.

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