

## Cinnamaldehyde Datasheet

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

### [ Product Information ]

**Name:** Cinnamaldehyde

**Catalog No.:** CFN99478

**Cas No.:** 104-55-2

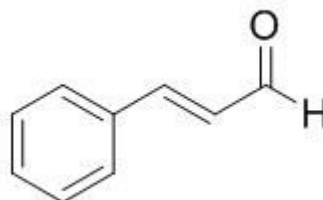
**Purity:** >=98%

**M.F:** C<sub>9</sub>H<sub>8</sub>O

**M.W:** 132.16

**Physical Description:** Oil

**Synonyms:** 3-Phenyl-2-propenal; Cinnamic aldehyde.



### [ Intended Use ]

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

### [ Source ]

The barks of *Cinnamomum cassia*.

### [ Biological Activity or Inhibitors ]

Cinnamaldehyde is an active compound isolated from the stem bark of *Cinnamomum cassia*, a traditional oriental medicinal herb, which has been shown to inhibit tumor cell proliferation, it induces the ROS-mediated mitochondrial permeability transition and resultant cytochrome c release in human promyelocytic leukemia HL-60 cells.<sup>[1]</sup>

Cinnamaldehyde possesses anti-bacterial activity against both gram-positive and gram-negative bacteria, the possible mechanisms of inhibition of energy generation are inhibition of glucose uptake or utilization of glucose and effects on membrane permeability.<sup>[2]</sup>

Cinnamaldehyde is a potential antidiabetic agent, it possesses hypoglycemic and hypolipidemic effects in streptozotocin (STZ) -induced diabetic rats. <sup>[3]</sup>

Cinnamaldehyde has toxicity and antifeedant activities against the grain storage insects, *Tribolium castaneum* (Herbst) and *Sitophilus zeamais* Motsch.<sup>[4]</sup>

## **[ Solvent ]**

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

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

Mobile phase: Methanol- Acetonitrile- H<sub>2</sub>O=35:20:45 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 221 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Ka H, Park H J, Jung H J, *et al. Cancer Lett.*, 2003, 196(2):143-52.

[2] Gill A O, Holley R A. *Appl. Environ. Microb.*, 2004, 70(10):5750-5.

[3] Babu P S, Prabuseenivasan S, Ignacimuthu S. *Phytomed. Int. J. Phytother. Phytopharmacol.*, 2007, 14(1):15-22.

[4] Huang Y, Ho S H. *J. Stored Prod. Res.*, 1998, 34(34):11-7.

[5] Gursale A, Dighe V, Parekh G. *J. Chromatogr. Sci.*, 2010, 48(1):59-62.

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