

# **Dihydrocapsaicin Datasheet**

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

#### [ Product Information ]

Name: Dihydrocapsaicin

Catalog No.: CFN99918

Cas No.: 19408-84-5

**Purity:** >=98%

M.F: C<sub>18</sub>H<sub>29</sub>NO<sub>3</sub>

M.W: 307.43

Physical Description: White cryst.

Synonyms: 8-Methyl-n-vanillyl-trans-6-nonenamide;8-Methyl-n-vanillyl-6-nonenamide;

(E)-8-Methyl-non-6-enoic acid- 4-hydroxy-3-methoxy-benzylamide.

#### [ Intended Use ]

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

#### [Source]

The fruits of Capsicum annuum L.

#### [Biological Activity or Inhibitors]

The active ingredients of spices such as chili and turmeric (capsaicin, dihydrocapsaicin and curcumin, respectively) have been shown to reduce the susceptibility of low-density lipoprotein (LDL) to oxidation, the oxidation of LDL is believed to be the initiating factor for the development and progression of atherosclerosis, suggests that they have anti-atherogenic activity.<sup>[1]</sup>

Dihydrocapsaicin(DHC) treatment depletes peptidergic nerve fibers of substance P and alters mast cell density in the respiratory tract of neonatal sheep.<sup>[2]</sup>

Dihydrocapsaicin induces autophagy in human cancer cells in a catalase-regulated manner, DHC activates autophagy in a p53-independent manner and that may contribute to cytotoxicity of DHC. <sup>[3]</sup>

#### [Solvent]

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

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

Mobile phase: Acetonitrile-H2O=50:50 ; Flow rate: 1.5 ml/min; Column temperature: Room Temperature; The wave length of determination: 222 nm.

### [Storage]

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

#### [<u>References</u>]

[1] Ahuja K D, Kunde D A, Ball M J, et al. J. Agr. Food Chem., 2006, 54(54):6436-9.
[2]Rafael Ramírez-Romeroa, Jack M Gallupa, Ioana M Soneab, et al. Regul. Peptides, 2000,91(1-3):97-106.

[3] Oh S, Kim Y S, Hou Y, et al. Autophagy, 2008, 4(8):1009-19.

[4]Al Othman Z A, Ahmed Y B, Habila M A, et al. Molecules, 2011, 16(10):8919-29.

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