

# Nordihydrocapsaicin Datasheet

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

# [ Product Information ]

Name: Nordihydrocapsaicin

Catalog No.: CFN90241

Cas No.: 28789-35-7

**Purity: >=98%** 

M.F: C<sub>17</sub>H<sub>27</sub>NO<sub>3</sub>

M.W: 293.40

Physical Description: Powder

**Synonyms:** N-[(4-Hydroxy-3-methoxyphenyl)methyl]-7-methyl-octanamide.

#### [ Intended Use ]

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

#### [Source]

The fruits of Capsicum annuum L.

## [ Biological Activity or Inhibitors]

Capsaicin and dihydrocapsaicin are the major active components in pepper spray

products, which are widely used for law enforcement and self-protection, they has

cytotoxicity, they induces p53 protein and G1 phase cell cycle arrest.[1]

Dihydrocapsaicin activates autophagy in a p53-independent manner and that may

contribute to cytotoxicity of dihydrocapsaicin.<sup>[2]</sup>

Dihydrocapsaicin induces hypothermia and substance P depletion, it or radiolabelled

dihydrocapsaicin, may be a useful tool for investigating the mechanisms by which

capsaicin alters thermoregulation and primary afferent neuron function.[3]

Capsaicin and dihydrocapsaicin have effect on in vitro blood coagulation and platelet

aggregation. [4]

#### [Solvent]

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

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

Mobile phase: Acetonitrile - H2O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

## [Storage]

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

#### [References]

[1] Halme M, Pesonen M, Salo H, et al. J. Chromatogr.B , 2015, 1009-1010:17-24.

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

[3] Miller M S, Brendel K, Buck S H, et al. Eur. J. Pharmacol., 1982, 83(3-4):289-92.

[4] Adams M J, Ahuja K D K, Geraghty D P. Thromb. Res., 2009, 124(6):721-3.

[5] Zhang J, Sun C B, Shi L L, et al. Chinese Journal of Pharmaceutical Analysis, 2011,

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