bio-techne
TOCRIS

Print Date: Sep 12th 2024

Certificate of Analysis

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Product Name: (*E*)-Capsaicin
Catalog No.: 0462
Batch No.: 7
CAS Number: 404-86-4
EC Number: 206-969-8
IUPAC Name: (*E*)-*N*-[(4-Hydroxy-3-methoxyphenyl)methyl]-8-methyl-6-nonenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{27}NO_3$

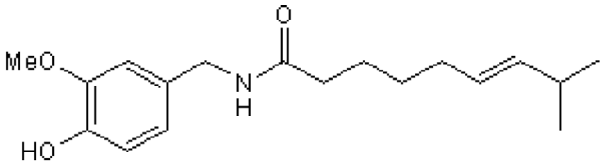
Batch Molecular Weight: 305.42

Physical Appearance: White solid

Solubility: DMSO to 50 mM
ethanol to 50 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.79	8.91	4.59
Found	70.89	8.8	4.62

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

(E)-Capsaicin is a prototypic vanilloid receptor agonist (pEC_{50} values are 7.97 and 7.10 at rat and human VR1 receptors respectively). Excites a subset of primary afferent sensory neurons, with subsequent antinociceptive and anti-inflammatory effects. Reversibly inhibits aggregation of platelets.

Physical and Chemical Properties:

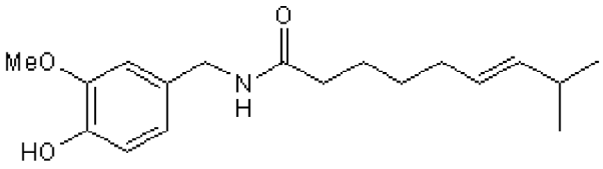
Batch Molecular Formula: $C_{18}H_{27}NO_3$

Batch Molecular Weight: 305.42

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 mM
ethanol to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Ralevic *et al* (2001) Cannabinoid activation of recombinant and endogenous vanilloid receptors. Eur.J.Pharmacol. ***424*** 211. PMID: 11672565.

Hogaboam and Wallace (1991) Inhibition of platelet aggregation by capsaicin. An effect unrelated to actions on sensory afferent neurons. Eur.J.Pharmacol. ***202*** 129. PMID: 1786800.

Holzer (1991) Capsaicin-cellular targets, mechanism of actions, and selectivity for thin sensory neurons. Pharmacol.Rev. ***43*** 143. PMID: 1852779.