

Certificate of Analysis

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Product Name: Oleamide

Catalog No.: 0878

Batch No.: 5

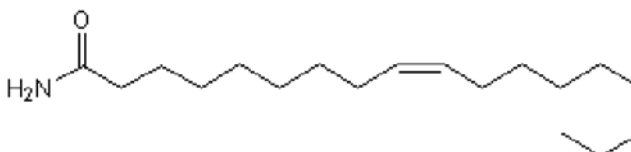
CAS Number: 301-02-0

EC Number: 206-103-9

IUPAC Name: *cis*-9-Octadecenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₃₅NO
Batch Molecular Weight: 281.48
Physical Appearance: White solid
Solubility: ethanol to 100 mM
DMSO to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

GC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 76.81 | 12.53 | 4.98 |
| Found | 76.69 | 12.43 | 5 |

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

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Catalog No.: 0878

Batch No.: 5

CAS Number: 301-02-0

EC Number: 206-103-9

IUPAC Name: *cis*-9-Octadecenamide

Description:

Endogenous sleep-inducing lipid. Acts as an agonist at the CB₁ cannabinoid receptor (EC₅₀ = 1.64 μM). Also appears to potentiate the actions of 5-HT on 5-HT_{2A} and _{2C} receptors, and act via an allosteric regulatory site on 5-HT₇ receptors.

Physical and Chemical Properties:

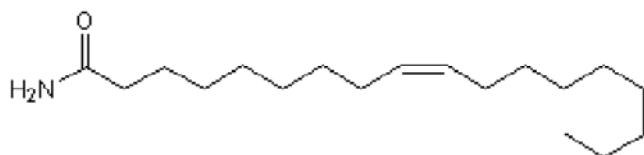
Batch Molecular Formula: C₁₈H₃₅NO

Batch Molecular Weight: 281.48

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 100 mM

DMSO 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. Our standard recommendations are:

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:

Leggett *et al* (2004) Oleamide is a selective endogenous agonist of rat and human CB₁ cannabinoid receptors. *Br.J.Pharmacol.* **141** 253. PMID: 14707029.

Hedlund *et al* (1999) Allosteric regulation by oleamide of the binding properties of 5-hydroxytryptamine₇ receptors. *Biochem.Pharmacol.* **58** 1807. PMID: 10571256.

Huidobro-Toro and Harris (1996) Brain lipids that induce sleep are novel modulators of 5-hydroxytryptamine receptors. *Proc.Natl.Acad.Sci.U.S.A.* **93** 8078. PMID: 8755606.

Cravatt *et al* (1995) Chemical characterisation of a family of brain lipids that induces sleep. *Science* **268** 1506. PMID: 7770779.

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