

Certificate of Analysis

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Product Name: Oleylethanolamide

Catalog No.: 1484

Batch No.: 4

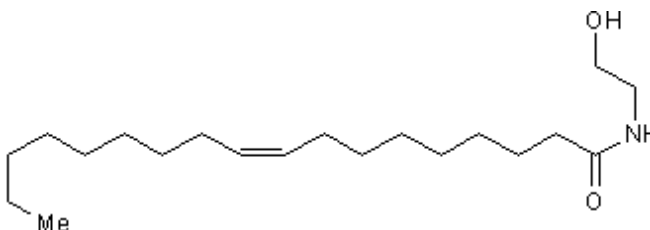
CAS Number: 111-58-0

EC Number: 203-884-8

IUPAC Name: (9Z)-N-(2-Hydroxyethyl)-9-octadecenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₃₉NO₂
Batch Molecular Weight: 325.53
Physical Appearance: White solid
Solubility: ethanol to 100 mM
 DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.32 (Ethyl acetate)
Melting Point: Between 62 - 64°C
HPLC: Shows >99.1% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure
 Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.79	12.08	4.3
Found	73.98	11.78	4.38

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

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Description:

Lipid mediator and analog of anandamide (Cat. No. 1339) that is involved in peripheral regulation of feeding. Selective GPR55 agonist (EC₅₀ values are 0.44, >30 and >30 μM at GPR55, CB₁ and CB₂ respectively) and PPARα agonist (EC₅₀ = 120 nM). Induces satiety through activation of PPARα and is also a ceramidase inhibitor. Also endogenous agonist at the GPR119 receptor.

Physical and Chemical Properties:

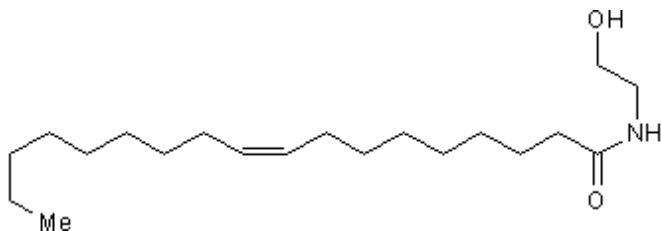
Batch Molecular Formula: C₂₀H₃₉NO₂

Batch Molecular Weight: 325.53

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Coroneos et al (1995) Differential regulation of sphingomyelinase and ceramidase activities by growth factors and cytokines. *J.Biol.Chem.* **270** 23305. PMID: 7559485.

de Fonseca et al (2001) An anorexic lipid mediator regulated by feeding. *Nature* **414** 209. PMID: 11700558.

Calignano et al (2001) Antinociceptive activity of the endogenous fatty acid amide, palmitylethanolamide. *Eur.J.Pharmacol.* **419** 191. PMID: 11426841.

Fu et al (2003) Oleylethanolamide regulates feeding and body weight through activation of the nuclear receptor PPAR-α. *Nature* **425** 90. PMID: 12955147.

Ryberg et al (2007) The orphan receptor GPR55 is a novel cannabinoid receptor. *Br.J.Pharmacol.* **152** 1092. PMID: 17876302.

Storage: Store at +4°C

Solubility & Usage Info:

ethanol to 100 mM

DMSO to 100 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.

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