

Certificate of Analysis

Product Name: Palmitoylisopropylamide

Catalog No.: 1815

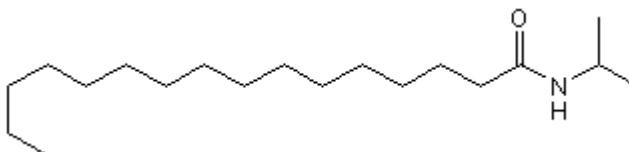
Batch No.: 1

CAS Number: 189939-61-5

IUPAC Name: *N*-(1-Methylethyl)-hexadecanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₃₉NO
Batch Molecular Weight: 297.52
Physical Appearance: White crystalline solid
Solubility: ethanol to 100 mM
 DMSO to 10 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.66 (Ethyl acetate:Petroleum ether [1:1])
Melting Point: Between 86 - 87°C
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	76.7	13.21	4.71
Found	76.78	13.46	4.57

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

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Description:

Inhibitor of fatty acid amide hydrolase (FAAH); $pIC_{50} = 4.89$ for inhibition of [³H]-anandamide metabolism. Displays little binding to CB₁ and CB₂ receptors ($IC_{50} > 100 \mu M$) and very weakly blocks anandamide uptake ($IC_{50} \sim 100 \mu M$). Inhibits proliferation of C6 glioma cells.

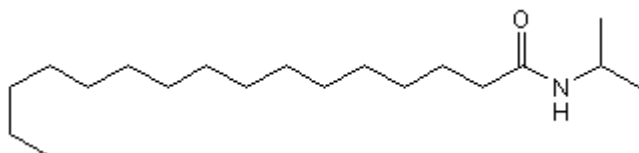
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Solubility & Usage Info:

ethanol to 100 mM

DMSO to 10 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:

Jonsson et al (2001) Effects of homologues and analogues of palmitoylethanolamide upon the inactivation of the endocannabinoid anandamide. *Br.J.Pharmacol.* **133** 1263. PMID: 11498512.

Jonsson et al (2003) AM404 and VDM 11 non-specifically inhibit C6 glioma cell proliferation at concentrations used to block the cellular accumulation of the endocannabinoid anandamide. *Arch.Toxicol.* **77** 201. PMID: 12698235.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956