

Certificate of Analysis

Product Name: 2-Palmitoylglycerol

Catalog No.: 2206

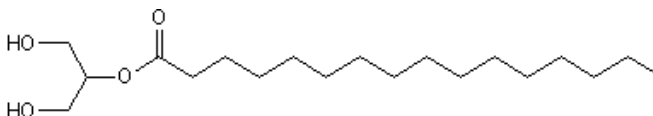
Batch No.: 1

CAS Number: 23470-00-0

IUPAC Name: 2-Hydroxy-1-(hydroxymethyl)ethyl hexadecanoic acid ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₃₈O₄
Batch Molecular Weight: 330.51
Physical Appearance: White solid
Solubility: ethanol to 100 mM
 DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Ethyl acetate:Petroleum ether [1:1])
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	69.05	11.59	
Found	69.05	11.53	

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

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Description:

Endogenous fatty acid glycerol ester that enhances activity of 2-arachidonylglycerol (Cat. No. 1298). Does not bind to CB₁ or CB₂ cannabinoid receptors, but potentiates the apparent binding of 2-AG and increases its ability to inhibit adenylyl cyclase. Enhances in vivo cannabinoid effects of 2-AG following combined administration with 2-linoleoylglycerol.

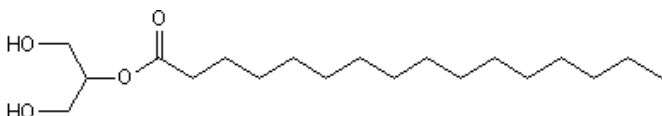
Physical and Chemical Properties:

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Storage: Store at -20°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.

References:

Ben-Shabat *et al* (1998) An entourage effect: inactive endogenous fatty acid glycerol esters enhance 2-arachidonyl-glycerol cannabinoid activity. *Eur.J.Pharmacol.* **353** 23. PMID: 9721036.

Gallily *et al* (2000) 2-Arachidonylglycerol, an endogenous cannabinoid, inhibits tumor necrosis factor-α production in murine macrophages, and in mice. *Eur.J.Pharmacol.* **406** R5. PMID: 11011050.

Walker *et al* (2002) Endocannabinoids and related fatty acid derivatives in pain modulation. *Chem.Phys.Lipids* **121** 159. PMID: 12505698.

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