

Certificate of Analysis

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Product Name: Arachidonyl serotonin

Catalog No.: 2836

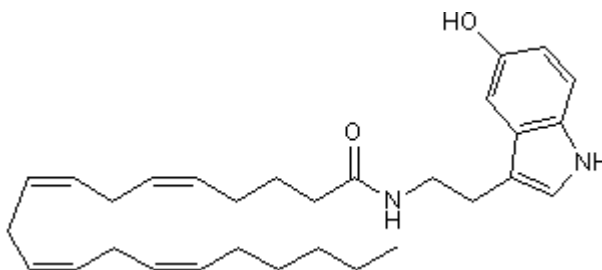
Batch No.: 4

CAS Number: 187947-37-1

IUPAC Name: *N*-[2-(5-Hydroxy-1*H*-indol-3-yl)ethyl]-5,8,11,14-eicosatetraenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₄₂N₂O₂
Batch Molecular Weight: 462.67
Physical Appearance: Pale brown oil
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.28 (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows >98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

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

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Description:

Dual fatty acid amide hydrolase (FAAH) inhibitor/TRPV1 antagonist (IC₅₀ values are 5.6 μM and 37 - 40 nM for FAAH and TRPV1 respectively). Inactive at cPLA₂, CB₁ or 5-HT receptors. Displays strong analgesic activity against both acute and chronic peripheral pain.

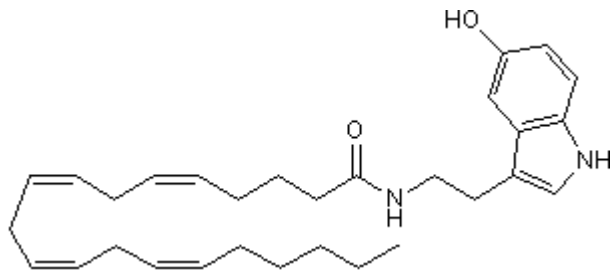
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CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

This compound is supplied pre-dissolved in Methyl acetate (10mg/ml). To change the solvent, evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the chosen solvent (preferably purged with nitrogen beforehand). The solubility of arachidonyl serotonin is greater than 100mM in both DMSO and Ethanol.

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:

Bisogno *et al* (1998) Arachidonoylserotonin and other novel inhibitors of fatty acid amide hydrolase. *Biochem.Biophys.Res.Comms.* **248** 515.

Di Marzo *et al* (2004) The endocannabinoid system and its therapeutic exploitation. *Nat.Rev.Drug Discov.* **3** 771. PMID: 15340387.

Maione *et al* (2007) Analgesic actions of *N*-arachidonoyl-serotonin, a fatty acid amide hydrolase inhibitor with antagonistic activity at vanilloid TRPV1 receptors. *Br.J.Pharmacol.* **150** 766. PMID: 17279090.

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