

Certificate of Analysis

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Product Name: AM 404

Catalog No.: 1116

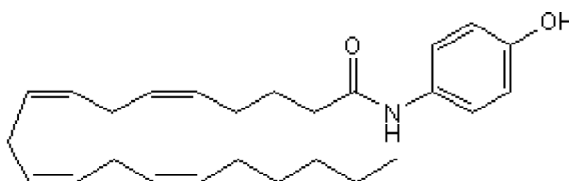
Batch No.: 15

CAS Number: 183718-77-6

IUPAC Name: *N*-(4-Hydroxyphenyl)-5Z,8Z,11Z,14Z-eicosatetraenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₆H₃₇NO₂
Batch Molecular Weight: 395.58
Physical Appearance: White waxy solid
Solubility: ethanol to 50 mM
DMSO to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Dichloromethane:Methanol [9:1])
HPLC: Shows 98.0% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	78.94	9.43	3.54
Found	78.7	9.47	3.52

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

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Description:

AM 404 is a competitive and selective inhibitor of carrier-mediated anandamide transport ($IC_{50} = 1 \mu M$). Does not activate CB_1 receptors or inhibit anandamide hydrolysis but has been shown to activate native and cloned vanilloid receptors ($pEC_{50} = 7.4$). Also FABP inhibitor. Active in vivo.

Physical and Chemical Properties:

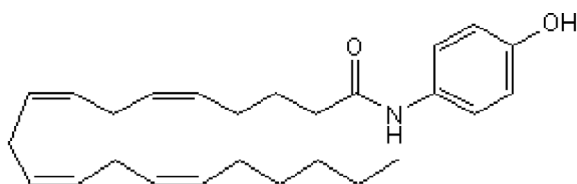
Batch Molecular Formula: $C_{26}H_{37}NO_2$

Batch Molecular Weight: 395.58

Physical Appearance: White waxy solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$

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 50 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 $45-60^{\circ}C$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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 $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Deutsch (2017) A personal retrospective: Elevating Anandamide (AEA) by targeting fatty acid amide hydrolase (FAAH) and the fatty acid binding proteins (FABPs). *Front.Pharmacol.* **7** 370. PMID: 27790143.

Zygmunt et al (2000) The anandamide transport inhibitor AM404 activates vanilloid receptors. *Eur.J.Pharmacol.* **396** 39. PMID: 10822052.

Piomelli et al (1999) Structural determinants for recognition and translocation by the anandamide transporter. *Proc.Natl.Acad.Sci.U.S.A.* **96** 5802. PMID: 10318965.

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