

**Product Name:** AM 404

**Catalog No.:** 1116

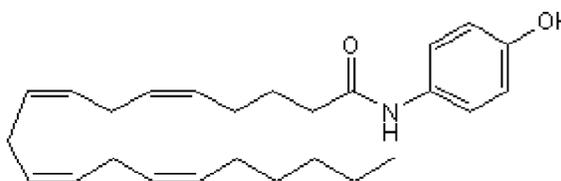
**Batch No.:** 15

CAS Number: 183718-77-6

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

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>26</sub>H<sub>37</sub>NO<sub>2</sub>  
**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<sub>f</sub> = 0.5 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 98.0% purity  
**<sup>1</sup>H 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:**

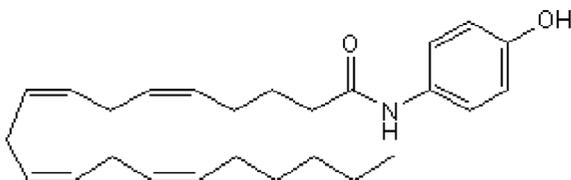
Batch Molecular Formula:  $C_{26}H_{37}NO_2$

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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