Product Name: AM 1172
Catalog No.: 3381
Batch No.: 1

CAS Number: 251908-92-6
IUPAC Name: \(N-(5Z,8Z,11Z,14Z)-5,8,11,14\text{-eicosatetraen-1-yl}-4\text{-hydroxybenzamide}\)

1. **PHYSICAL AND CHEMICAL PROPERTIES**

   **Batch Molecular Formula:** \(C_{27}H_{39}NO_2\)
   **Batch Molecular Weight:** 409.6
   **Physical Appearance:** Clear liquid
   **Solubility:** Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 10mg/ml)
   **Storage:** Store at -20°C

2. **ANALYTICAL DATA**

   **TLC:** \(R_f = 0.8\) (Ethyl acetate)
   **HPLC:** Shows 98.2% purity
   **\(^1\)H 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:
Metabolically stable anandamide uptake inhibitor (IC$_{50}$ = 2.1 - 2.5 μM) and fatty acid amide hydrolase (FAAH) inhibitor (K$_i$ = 3.18 μM). Inhibits N-arachidonylethanolamine (AEA) accumulation (IC$_{50}$ = 24 μM) and hydrolysis (K$_i$ = 3 μM), and inhibits N-palmitoylethanolamine (PEA) hydrolysis (IC$_{50}$ = 36 μM) in cerebellar granule neurons. Also acts as a non-selective cannabinoid receptor partial agonist (EC$_{50}$ values are 189 and 271 nM at CB$_2$ and CB$_1$ receptors respectively). FABP inhibitor.

Physical and Chemical Properties:
Batch Molecular Formula: C$_{27}$H$_{39}$NO$_2$
Batch Molecular Weight: 409.6
Physical Appearance: Clear liquid
Minimum Purity: ≥98%

Storage: Store at -20°C
ČAUTION - 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:
Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 10mg/ml)
This product is supplied dissolved in anhydrous ethanol at a concentration of 10mg/ml

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:
Deutsch (2016) 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.


Kaczocha et al (2006) Anandamide uptake is consistent with rate-limited diffusion and is regulated by the degree of its hydrolysis by fatty acid amide hydrolase. J.Biol.Chem. 281 9066. PMID: 16461355.