



Certificate of Analysis

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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-eicosatetraen-1-yl-4-hydroxybenzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₃₉NO₂
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

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.8$ (Ethyl acetate)

HPLC: Shows 98.2% purity

1H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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Product Information

Print Date: Oct 19th 2020

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IUPAC Name: N-(5Z,8Z,11Z,14Z)-5,8,11,14-eicosatetraen-1-yl-4-hydroxybenzamide

Description:

Metabolically stable anandamide uptake inhibitor (IC $_{50}$ = 2.1 - 2.5 μ M) and fatty acid amide hydrolase (FAAH) inhibitor (K $_{i}$ = 3.18 μ M). Inhibits N-arachidonylethanolamine (AEA) accumulation (IC $_{50}$ = 24 μ M) and hydrolysis (K $_{i}$ = 3 μ M), and inhibits N-palmitoylethanolamine (PEA) hydrolysis (IC $_{50}$ = 36 μ M) 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: C₂₇H₃₉NO₂ Batch Molecular Weight: 409.6 Physical Appearance: Clear liquid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°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:

Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 10mg/ml)

This product is supplied dissolved in anhydrous ethanol at a concentration of $10\,\mathrm{mg/ml}$

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.

Hillard et al (2007) Studies of anandamide accumulation inhibitors in cerebellar granule neurons. J.Mol.Neurosci. 33 18. PMID: 17901541.

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.