

Certificate of Analysis

Print Date: Jan 13th 2016

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Product Name: VDM 11 Catalog No.: 1392 Batch No.: 3

CAS Number: 313998-81-1

IUPAC Name: (5Z,8Z,11Z,14Z)-N-(4-Hydroxy-2-methylphenyl)-5,8,11,14-eicosatetraenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{27}H_{39}NO_2$ Batch Molecular Weight: 409.61

Physical Appearance: Colourless liquid

Solubility: Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 5mg/ml)

Storage: Desiccate at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.6$ (Dichloromethane:Methanol [95:5])

HPLC: Shows >98.5% purity

1H NMR: Consistent with structure



Product Information

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IUPAC Name: (5Z,8Z,11Z,14Z)-N-(4-Hydroxy-2-methylphenyl)-5,8,11,14-eicosatetraenamide

Description:

A potent and selective inhibitor of the anandamide membrane transporter (AMT) with IC $_{50}$ values of 4-11 μ M. Displays negligible agonist activity at the hVR1 receptor and very weak action at CB $_{1}$ and CB $_{2}$ receptors. K $_{i}$ values are > 5-10 μ M at CB $_{1}$ and CB $_{2}$. Active in vivo. Also available in water-soluble emulsion (Cat. No. 1686).

Physical and Chemical Properties:

Batch Molecular Formula: C₂₇H₃₉NO₂ Batch Molecular Weight: 409.61 Physical Appearance: Colourless liquid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate 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, 5mg/ml)

This product is supplied dissolved in anhydrous ethanol at a concentration of 5mg/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:

De Petrocellis *et al* (2000) Overlap between the ligand recognition properties of the anandamide transporter and the VR1 vanilloid receptor: inhibitors of anandamide uptake with negligible capsaicin-like activity. FEBS Lett. **483** 52. PMID: 11033355.

De Petrocellis *et al* (2001) The activity of anandamide at vanilloid VR1 receptors requires facilitated transport across the cell membrane and is limited by intracellular metabolism. J.Biol.Chem. **276** 12856. PMID: 11278420.

Bisogno et al (2001) The uptake by cells of 2-arachidonoylglycerol, an endogenous agonist of cannabinoid receptors. Eur.J.Biochem. **268** 1982. PMID: 11277920.

Gubellini et al (2002) Experimental Parkinsonism alters endocannabinoid degradation: implications for striatal glutamatergic transmission. J.Neurosci. **22** 6900. PMID: 12177188.