

Product Name: (R)-(+)-Methanandamide

Catalog No.: 1121

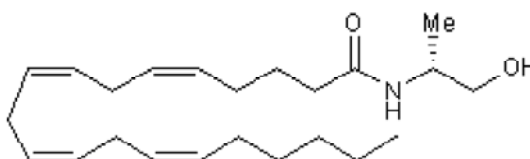
Batch No.: 7

CAS Number: 157182-49-5

IUPAC Name: (R)-N-(2-Hydroxy-1-methylethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₃₉NO₂
Batch Molecular Weight: 361.57
Physical Appearance: Golden oil
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 = 0.33 (Chloroform:Methanol [95:5])
HPLC: Shows >98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = 10 (Concentration = 1, Solvent = Chloroform)

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

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Description:

Stable anandamide analog that is a selective agonist for the CB₁ receptor (K_i values are 20 and 815 nM for CB₁ and CB₂ receptors respectively). Also displays agonist activity at vanilloid receptors. Water Soluble Emulsion also available.

Physical and Chemical Properties:

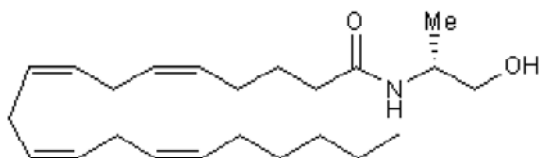
Batch Molecular Formula: C₂₃H₃₉NO₂

Batch Molecular Weight: 361.57

Physical Appearance: Golden oil

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:

Zygmunt *et al* (1999) Vanilloid receptors on sensory nerves mediate the vasodilator action of anandamide. *Nature* **400** 452. PMID: 10440374.

Carriero *et al* (1998) A detailed characterization of the effects of four cannabinoid agonists on operant lever pressing. *Psychopharmacology (Berl.)* **137** 147. PMID: 9630001.

Khanolkar *et al* (1996) Head group analogs of arachidonylethanolamide, the endogenous cannabinoid ligand. *J.Med.Chem.* **39** 4515. PMID: 8893848.

Abadji *et al* (1994) (R)-Methanandamide: a chiral novel anandamide possessing higher potency and metabolic stability. *J.Med.Chem.* **37** 1889. PMID: 8021930.

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