

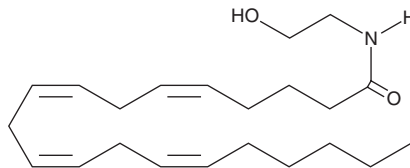
Product Information



Arachidonoyl Ethanolamide Lipid Maps MS Standard

Catalog No. 10007270

CAS Registry No:	94421-68-8
Formal Name:	N-(2-hydroxyethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonyms:	Anandamide; AEA
MF:	C ₂₂ H ₃₇ NO ₂
FW:	347.5
Purity:	≥98%
Stability:	≥1 year at -20°C
Supplied as:	A solution in ethanol
Misc:	Oxygen and light sensitive



Laboratory Procedures

For long term storage, we suggest that arachidonoyl ethanolamide (AEA) be stored as supplied at -20°C. It should be stable for at least one year.

AEA is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of AEA in these solvents is approximately 30 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of AEA is needed, it can be prepared by evaporating the AEA and directly dissolving the neat oil in aqueous buffers. The solubility of AEA in PBS, pH 7.2, is approximately 100 mg/ml. We do not recommend storing the aqueous solution for more than one day.

AEA is a lipid soluble compound and therefore is not directly soluble in aqueous solutions. In cell culture studies, AEA is directly added as an ethanolic solution to the medium.¹ Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations.

AEA is the ethanolamine amide of arachidonic acid, first isolated from porcine brain.¹ AEA is an endogenous cannabinoid neurotransmitter that binds to both central cannabinoid (CB₁) and peripheral cannabinoid (CB₂) receptors.² AEA inhibits the specific binding of [³H]-HU-243 to synaptosomal membranes with a K_i value of 52 nM, compared to 46 nM for Δ⁹-THC.¹

References

1. Devane, W.A., Hanus, L., Breuer, A., *et al.* Isolation and structure of a brain constituent that binds to the cannabinoid receptor. *Science* **258**, 1946-1949 (1992).
2. Felder, C.C., Briley, E.M., Axelrod, J., *et al.* Anandamide, an endogenous cannabimimetic eicosanoid, binds to the cloned human cannabinoid receptor and stimulates receptor-mediated signal transduction. *Proc. Natl. Acad. Sci. USA* **90**, 7656-7660 (1993).

Related Products

N-Arachidonoyl-3-hydroxy-γ-Aminobutyric Acid - Cat. No. 10158 • Arachidonoyl Ethanolamide Phosphate - Cat. No. 10180 • Leukotriene B₄ Ethanolamide - Cat. No. 20112 • CAY10412 - Cat. No. 72620 • Arachidonoyl Ethanolamide - Cat. No. 90050 • Arachidonoyl-2'-Fluoroethylamide - Cat. No. 90054 • N-Arachidonoyl Dopamine - Cat. No. 90057 • CP 55,940 - Cat. No. 90084 • Arachidonoyl Cyclopropylamide - Cat. No. 91053 • Arachidonoyl 2'-Chloroethylamide - Cat. No. 91054 • Monoacylglycerol Lipase Polyclonal Antibody - Cat. No. 100035 • CB₂ Receptor Polyclonal Antibody - Cat. No. 101550 • Arachidonoyl Ethanolamide-d₈ - Cat. No. 390050 • AMC Arachidonoyl Amide - Cat. No. 10005098 • AM1172 - Cat. No. 10005223 • Arachidonoyl Ethanolamide - Cat. No. 10005765 • Docosanoyl Ethanolamide - Cat. No. 10005823 • Arachidonoyl-N,N-dimethyl amide - Cat. No. 10007293 • (±)5(6)-EET Ethanolamide - Cat. No. 10008596 • (±)8(9)-EET Ethanolamide - Cat. No. 10008597 • 20-HETE Ethanolamide - Cat. No. 10008602 • oxy-Arachidonoyl Ethanolamide - Cat. No. 10008642 • 1-Linoleoyl Glycerol - Cat. No. 10008869 • O-Arachidonoyl Glycidol - Cat. No. 10010547 • PF-622 - Cat. No. 10010907 • PF-750 - Cat. No. 10010908

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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