

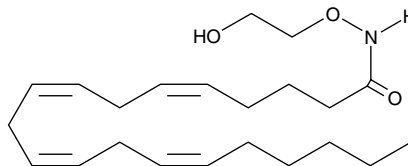
Product Information



oxy-Arachidonoyl Ethanolamide

Item No. 10008642

CAS Registry No.: 883296-70-6
Formal Name: N-(2-hydroxyethoxy)-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonyms: oxy-AEA, oxy-Anandamide
MF: C₂₂H₃₇NO₃
FW: 363.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

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

oxy-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 and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of oxy-AEA in these solvents is approximately 30 mg/ml in DMSO and approximately 20 mg/ml in DMF.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

AEA acts as an endogenous mimic of Δ^9 -THC, the psychotropic component of marijuana.¹ oxy-AEA is the O-alkyl-N-acyl oxyhomologue of AEA. oxy-AEA binds selectively to the peripheral cannabinoid (CB₂) receptor with K_i values of 0.47 and 0.081 μ M for hCB₁ and hCB₂, respectively.² In comparison, anandamide has a greater affinity for the central cannabinoid (CB₁) receptor with K_i values of 0.07 and 0.18 μ M for hCB₁ and hCB₂, respectively. oxy-AEA is the first known fatty acid amide with a reversed CB₁/CB₂ affinity ratio.

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. Appendino, G., Minassi, A., Berton, L., *et al.* Oxyhomologues of anandamide and related endolipids: Chemoselective synthesis and biological activity. *J. Med. Chem.* **49**, 2333-2338 (2006).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10008642

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

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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