

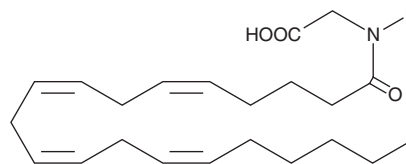
PRODUCT INFORMATION



Arachidonoyl Glycine

Item No. 90051

CAS Registry No.: 179113-91-8
Formal Name: N-[1-oxo-5Z,8Z,11Z,14Z-eicosatetraenyl]-glycine
Synonyms: N-Arachidonoyl Glycine, NAGly
MF: C₂₂H₃₅NO₃
FW: 361.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Arachidonoyl glycine (NAGly) 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 ethanol, methyl acetate, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of NAGly in these solvents is approximately 50, 10, 15, and 20 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 NAGly is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of NAGly in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NAGly has been isolated from cell cultures treated with arachidonoyl ethanolamide (AEA; anandamide),¹ from extracts of mammalian brain,^{2,3} and has also been synthesized as an analog of AEA for structure/ activity testing.⁴ NAGly may be produced endogenously *via* oxidation of AEA, or by transacylation of arachidonoyl Co-enzyme A. NAGly is reported to have analgesic activities in whole animal experiments.¹⁻³ Since it seems to be a very poor ligand for the cannabinoid-1 receptor,⁴ these effects are probably mediated *via* other signaling pathways.

References

1. Burstein, S.H., Rossetti, R.G., Yagen, B., *et al.* Oxidative metabolism of anandamide. *Prostaglandins Other Lipid Mediat.* **61**, 29-41 (2000).
2. Huang, S.M., Bisogno, T., Petros, T.J., *et al.* Identification and characterization of an endogenous anandamide-like compound: N-arachidonylglycine (NAGly). *ICRS 2001 Symposium on the Cannabinoids* **78** (2001).
3. Huang, S.M., Bisogno, T., Petros, T.J., *et al.* Identification of a new class of molecules, the arachidonoyl amino acids, and characterization of one member that inhibits pain. *J. Biol. Chem.* **276(46)**, 42639-42644 (2001).
4. Sheskin, T., Hanus, L., Slager, J., *et al.* Structural requirements for binding of anandamide-type compounds to the brain cannabinoid receptor. *J. Med. Chem.* **40**, 659-667 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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