

Product Data Sheet

Product Name: Arachidonoyl Glycine-d8

Cat. No.: GC46877

Chemical Properties

Cas. No. 1159908-44-7

SMILES CCCCC/C=C\C/C=C\C/C=C\C/C=C\C/C=C\CCCC(=O)NCC(=O)O

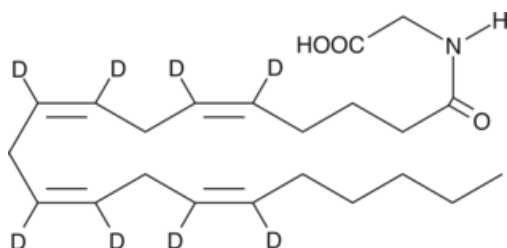
Formula C₂₂H₂₇D₈NO₃ M.Wt 369.6

Solubility DMF: 20 mg/ml, DMSO: 15 mg/ml, Ethanol: 25 mg/ml, PBS (pH 7.2): 2 mg/ml
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Arachidonoyl glycine-d8 (NAGly-d8) contains eight deuterium atoms at the 5, 6, 8, 9, 11, 12, 14, and 15 positions. It is intended for use as an internal standard for the quantification of NAGly by GC- or LC-mass spectrometry. NAGly has been isolated from cell cultures treated with arachidonoyl ethanolamide (AEA),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 coenzyme A. NAGly is reported to have analgesic activities in whole animal experiments.^{1,2,3} Since it seems to be a very poor ligand for the CB₁ receptor,⁴ these effects are probably mediated *via* other signalling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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1. Burstein, S.H., Rossetti, R.G., Yagen, B., et al. Oxidative metabolism of anandamide Prostaglandins & Other Lipid Mediators 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 arachidonyl amino acids, and characterization of one member that inhibits pain The Journal of Biological Chemistry 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 Journal of Medicinal Chemistry 40:659-667 (1997)

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