

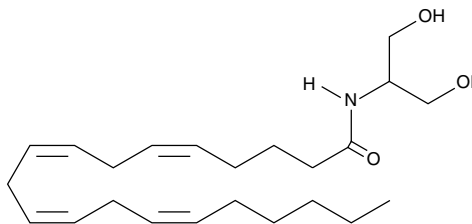
Product Information



Arachidonoyl Serinol

Item No. 62170

CAS Registry No.: 183718-70-9
Formal Name: N-[(2-hydroxy-1-hydroxymethyl)ethyl]-5Z,8Z,11Z,14Z-eicosatetraenamide
MF: C₂₃H₃₉NO₃
FW: 377.6
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

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

Arachidonoyl serinol 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, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of arachidonoyl serinol in these solvents is approximately 10 mg/ml.

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. For maximum solubility in aqueous buffers, the ethanolic solution of arachidonoyl serinol should be diluted with the aqueous buffer of choice. Arachidonoyl serinol has a solubility of approximately 1 mg/ml in a 2:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

2-Arachidonoyl glycerol (2-AG) has been isolated from porcine brain, and has been characterized as the natural endocannabinoid ligand for the CB₁ receptor.^{1,2} Replacement of the *sn*-2 oxygen in the glycerol moiety of 2-AG with a nitrogen atom gives arachidonoyl serinol.³ Arachidonoyl serinol is much more stable than 2-AG. However, it is at least a log less potent as a CB₁ receptor agonist than 2-AG.²

References

1. Sugiura, T., Kodaka, T., Kondo, S., *et al.* 2-Arachidonoylglycerol, a putative endogenous cannabinoid receptor ligand, induces rapid, transient elevation of intracellular free Ca²⁺ in neuroblastoma X glioma hybrid NG108-15 cells. *Biochem. Biophys. Res. Commun.* **229**, 58-64 (1996).
2. Sugiura, T., Kodaka, T., Kondo, S., *et al.* Is the cannabinoid CB₁ receptor a 2-arachidonoylglycerol receptor? Structural requirements for triggering a Ca²⁺ transient in NG108-15 cells. *J. Biochem.* **122**, 890-895 (1997).
3. Khanolkar, A.D., Abadji, V., Lin, S., *et al.* Head group analogs of arachidonylethanolamide, the endogenous cannabinoid ligand. *J. Med. Chem.* **39**, 4515-4519 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/62170

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

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 Safety Data Sheet, which has been sent via email to your institution.

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