

PRODUCT INFORMATION



Stearidonoyl Glycine

Item No. 9000327

Formal Name: 2-(6Z,9Z,12Z,15Z)-octadeca-tetraenamidoacetic acid

MF: $C_{20}H_{31}NO_3$

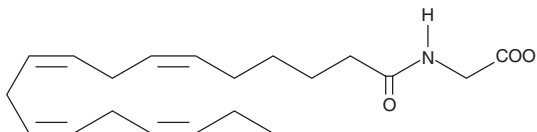
FW: 333.5

Purity: $\geq 98\%$

Supplied as: A solution in ethanol

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Stearidonoyl glycine 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 (DMF) purged with an inert gas can be used. The solubility of stearidonoyl glycine in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

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 stearidonoyl glycine is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of stearidonoyl glycine in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The ω -3 polyunsaturated fatty acids (PUFAs) found in fish oils provide cardiovascular benefits. Stearidonic acid is an ω -3 C18:4 PUFA. It is an intermediate in the metabolic pathway leading from α -linolenic acid (ALA) to eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).¹ Dietary stearidonic acid increases tissue levels of EPA better than does dietary ALA.² Stearidonoyl glycine consists of glycine attached at the carboxy terminus.

References

1. Guil-Guerrero, J.L. Stearidonic acid (18:4n-3): Metabolism, nutritional importance, medical uses and natural sources. *Eur. J. Lipid. Sci. Technol.* **109**, 1226-1236 (2007).
2. James, M.J., Ursin, V.M., and Cleland, L.G. Metabolism of stearidonic acid in human subjects: Comparison with the metabolism of other ω -3 fatty acids. *Am. J. Clin. Nutr.* **77**, 1140-1145 (2003).

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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