PRODUCT INFORMATION



Eicosapentaenoyl 1-propanol-2-amide

Item No. 17547

CAS Registry No.: 1638355-66-4

Formal Name: N-(2-hydroxy-1-methylethyl)-

5Z,8Z,11Z,14Z,17Z-eicosapentaenamide

MF: $C_{23}H_{37}NO_{2}$ FW: 359.6 **Purity:** ≥98%

Supplied as: A solution in ethanol

Storage: -20°C Stability: ≥2 years

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

Laboratory Procedures

Eicosapentaenoyl 1-propanol-2-amide 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 purged with an inert gas can be used. The solubility of eicosapentaenoyl 1-propanol-2-amide in these solvents is approximately 30 mg/ml.

Eicosapentaenoyl 1-propanol-2-amide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of eicosapentaenoyl 1-propanol-2-amide should be diluted with the aqueous buffer of choice. Eicosapentaenoyl 1-propanol-2-amide has a solubility of 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Monoacylglycerols (MAGs) of ω-3 polyunsaturated fatty acids have diverse physiological and health effects.¹⁻³ In particular, MAGs containing docosahexaenoic acid (Item No. 90310) or eicosapentaenoic acid (EPA; Item No. 90110) have anti-proliferative properties against colon and lung cancer cell lines.⁴ Eicosapentaenoyl 1-propanol-2-amide is an EPA-containing MAG amide analog that inhibits the growth of human lung carcinoma A549 cells, producing 98.4% growth inhibition when applied at 3 μM.⁵ It is an analog of eicosapentaenoyl ethanolamide (Item No. 10964), a natural N-acylethanolamide that impacts aging and inflammation.6,7

References

- 1. Hernández-Torres, G., Cipriano, M., Hedén, E., et al. Angew. Chem. Int. Ed. Engl. 53(50), 13765-13770 (2014).
- Douglass, J.D., Zhou, Y.X., Wu, A., et al. J. Lipid Res. 56(6), 1153-1171 (2015).
- 3. Morin, C., Blier, P.U., and Fortin, S. Arthritis Res. Ther. 17(1), 142 (2015).
- 4. Morin, C., Rousseau, É., and Fortin, S. Prostaglandins Leukot. Essent. Fatty Acids 89(4), 203-213 (2013).
- 5. Tremblay, H., St-Georges, C., Legault, M.A., et al. Bioorg. Med. Chem. Lett. 24(24), 5635-5638 (2014).
- 6. Lucanic, M., Held, J.M., Vantipalli, M.C., et al. Nature 473(7346), 226-229 (2011).
- 7. Balvers, M.G., Verhoeckx, K.C., Plastina, P., et al. Biochim. Biophys. Acta 1801(10), 1107-1114 (2010).

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

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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