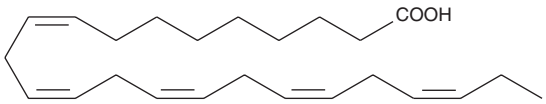
PRODUCT INFORMATION

9(Z),12(Z),15(Z),18(Z),21(Z)-Tetracosapentaenoic Acid

Item No. 10005157

CAS Registry No.: 68378-48-3
Formal Name: 9Z,12Z,15Z,18Z,21Z-tetracosapentaenoic acid
Synonym: all-*cis*-9,12,15,18,21-Tetracosapentaenoic Acid
MF: $C_{24}H_{38}O_2$
FW: 358.6
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

9(Z),12(Z),15(Z),18(Z),21(Z)-Tetracosapentaenoic acid 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.

For maximum solubility in aqueous buffers, the ethanolic solution of 9(Z),12(Z),15(Z),18(Z),21(Z)-tetracosapentaenoic acid should be diluted with the aqueous buffer of choice. 9(Z),12(Z),15(Z),18(Z),21(Z)-Tetracosapentaenoic acid has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method.

Description

9(Z),12(Z),15(Z),18(Z),21(Z)-Tetracosapentaenoic acid is an ω-3 very long-chain polyunsaturated fatty acid. It has been used to study the desaturation and elongation of ω-3 polyunsaturated fatty acids.[1] It is elongated to form C26:5 or acted on by Δ6 desaturase to form C24:6. 9(Z),12(Z),15(Z),18(Z),21(Z)-Tetracosapentaenoic acid is found at low levels in mouse brain and spleen and levels decrease in the brain and spleen of old and exceptionally old mice.[2]

References

1. Henderson, R.J., Burkow, I.C., Buzzi, M., *et al.* Effects of docosahexaenoic (22:6n-3), tetracosapentaenoic (24:5n-3) and tetracosahexaenoic (24:6n-3) acids on the desaturation and elongation of n-3 polyunsaturated fatty acids in trout liver microsomes. *Biochim Biophys. Acta.* **1392(2-3),** 309-319 (1998).
2. Arranz, L., Naudí, A., De la Fuente, M., *et al*. Exceptionally old mice are highly resistant to lipoxidation-derived molecular damage. *Age (Dordr)* **35(3),** 621-635 (2013).

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