PRODUCT INFORMATION

4(Z),7(Z),10(Z)-Tridecatrienoic Acid-d₅
Item No. 14895

Formal Name: (4Z,7Z,10Z)-trideca-4,7,10-trienoic-
12,12',13,13,13-d₅ acid
MF: C₁₃H₁₅D₅O₂
FW: 213.3
Chemical Purity: ≥90% (4(Z),7(Z),10(Z)-Tridecatrienoic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
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

4(Z),7(Z),10(Z)-Tridecatrienoic acid-d₅ is intended for use as an internal standard for the quantification of 4(Z),7(Z),10(Z)-tridecatrienoic acid by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

4(Z),7(Z),10(Z)-Tridecatrienoic acid-d₅ 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 4(Z),7(Z),10(Z)-tridecatrienoic acid-d₅ in these solvents is approximately 50 mg/ml.

Description

4(Z),7(Z),10(Z)-Tridecatrienoic acid (13:3 n-3) is an impurity generated during the synthesis of docosahexaenoic acid-d₅ (Item No. 10005057). Tridecatrienoic acid has also been isolated as methyl esters from algae. While the physiological properties of this compound are not known, dietary intake of n-3 long chain polysaturated fatty acids provides potential health benefits.

References


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