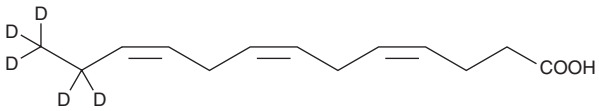
PRODUCT INFORMATION

4(Z),7(Z),10(Z)-Tridecatrienoic Acid-d_5

Item No. 14895

Formal Name: (4Z,7Z,10Z)-trideca-4,7,10-trienoic-12,12',13,13,13-d_5 acid
Synonym: FA 13:3-d_5
MF: $C_{13}H_{15}D_5O_2$
FW: 213.3
Chemical Purity: ≥90% (4(Z),7(Z),10(Z)-Tridecatrienoic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
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

4(Z),7(Z),10(Z)-Tridecatrienoic acid-d_5 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-d_5 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-d_5 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-d_5 (Item No. 10005057). Tridecatrienoic acid has also been isolated as methyl esters from algae.[1] While the physiological properties of this compound are not known, dietary intake of n-3 long chain polyunsaturated fatty acids provides potential health benefits.[2]

References

1. Aliya, R., Shameel, M., Usmanghani, K., *et al.* Fatty acid compositions of two siphonaceous green algae from the coast of karachi. *Pak. J. Pharm. Sci.* **8(2)**, 47-54 (1995).
2. Vaughan, V.C., Hassing, M.R., and Lewandowski, P.A. Marine polyunsaturated fatty acids and cancer therapy. *Br. J. Cancer* **108(3)**, 486-492 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM