

PRODUCT INFORMATION



Pentadecanoic Acid-d₃

Item No. 28596

CAS Registry No.: 352431-40-4

Formal Name: pentadecanoic-15,15,15-d₃ acid

Synonyms: C15:0-d₃, Pentadecylic Acid-d₃

MF: C₁₅H₂₇D₃O₂

FW: 245.4

Chemical Purity: ≥98% (Pentadecanoic Acid)

Deuterium

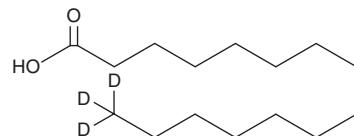
Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years

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



Laboratory Procedures

Pentadecanoic acid-d₃ is intended for use as an internal standard for the quantification of pentadecanoic acid (Item No. 17399) 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).

Pentadecanoic acid-d₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the pentadecanoic acid-d₃ in the solvent of choice, which should be purged with an inert gas. Pentadecanoic acid-d₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pentadecanoic acid-d₃ in ethanol and DMF is approximately 25 mg/ml and approximately 10 mg/ml in DMSO.

Description

Pentadecanoic acid is a 15:0 saturated fatty acid found in esterified form in the lipids of many bacterial species and in the milk fat of ruminants.¹ It has been used as a biological marker for the intake of dairy fat in the assessment of metabolic risk factors.^{1,2}

References

1. Smedman, A.E., Gustafsson, I.B., Berglund, L.G., et al. Pentadecanoic acid in serum as a marker for intake of milk fat: Relations between intake of milk fat and metabolic risk factors. *Am. J. Clin. Nutr.* **69**(1), 22-29 (1999).
2. Wolk, A., Vessby, B., Ljung, H., et al. Evaluation of a biological marker of dairy fat intake. *Am. J. Clin. Nutr.* **68**(2), 291-295 (1998).

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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