

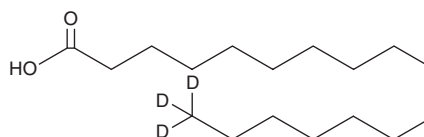
# PRODUCT INFORMATION



## Heptadecanoic Acid-d<sub>3</sub>

Item No. 27870

**CAS Registry No.:** 202528-95-8  
**Formal Name:** heptadecanoic-17,17,17-d<sub>3</sub> acid  
**Synonyms:** C17:0-d<sub>3</sub>, FA 17:0-d<sub>3</sub>, Heptadecylic Acid-d<sub>3</sub>, Margaric Acid-d<sub>3</sub>  
**MF:** C<sub>17</sub>H<sub>31</sub>D<sub>3</sub>O<sub>2</sub>  
**FW:** 273.5  
**Chemical Purity:** ≥98% (Heptadecanoic Acid)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Heptadecanoic acid-d<sub>3</sub> is intended for use as an internal standard for the quantification of heptadecanoic acid (Item No. 19722) 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).

Heptadecanoic acid-d<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the heptadecanoic acid-d<sub>3</sub> in the solvent of choice. Heptadecanoic acid-d<sub>3</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of heptadecanoic acid-d<sub>3</sub> in ethanol and DMF is approximately 25 mg/ml and approximately 10 mg/ml in DMSO.

### Description

Heptadecanoic acid is an odd-chain saturated fatty acid that contains seventeen carbons and has been found in milk fat.<sup>1</sup> Heptadecanoic acid has been used as an internal standard for the quantification of fatty acids in human plasma by LC- and GC-MS and as a biomarker for dairy fat intake.<sup>1,2</sup>

### References

1. Jenkins, B., West, J.A., and Koulman, A. A review of odd-chain fatty acid metabolism and the role of pentadecanoic acid (c15:0) and heptadecanoic acid (c17:0) in health and disease. *Molecules* **20**(2), 2425-2444 (2015).
2. Yakoob, M.Y., Shi, P., Hu, F.B., *et al.* Circulating biomarkers of dairy fat and risk of incident stroke in U.S. men and women in 2 large prospective cohorts. *Am. J. Clin. Nutr.* **100**(6), 1437-1447 (2014).

#### 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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