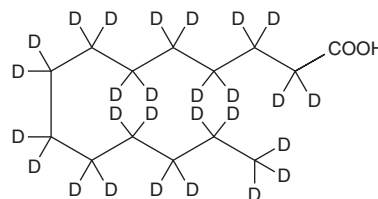


# PRODUCT INFORMATION



## Myristic Acid-d<sub>27</sub> Item No. 9003317

**CAS Registry No.:** 60658-41-5  
**Formal Name:** tetradecanoic-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-d<sub>27</sub> acid  
**Synonyms:** C14:0-d<sub>27</sub>, FA 14:0-d<sub>27</sub>, Tetradecanoic Acid-d<sub>27</sub>  
**MF:** C<sub>14</sub>HD<sub>27</sub>O<sub>2</sub>  
**FW:** 255.5  
**Chemical Purity:** ≥95% (Myristic Acid)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>27</sub>); ≤1% d<sub>0</sub>  
**UV/Vis.:** λ<sub>max</sub>: 211 nm  
**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

Myristic acid-d<sub>27</sub> is intended for use as an internal standard for the quantification of myristic acid (Item No. 13351) 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).

Myristic acid-d<sub>27</sub> is supplied as a solid. A stock solution may be made by dissolving the myristic acid-d<sub>27</sub> in the solvent of choice, which should be purged with an inert gas. Myristic acid-d<sub>27</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of myristic acid-d<sub>27</sub> in ethanol and DMF is approximately 15 mg/ml and approximately 12 mg/ml in DMSO.

### Description

Myristic acid is a 14-carbon saturated fatty acid. It is incorporated into myristoyl coenzyme A (myristoyl-CoA) and transferred by N-myristoyltransferase to the N-terminal glycine of certain proteins either during translation to modify protein activity or post-translationally in apoptotic cells.<sup>1,2</sup>

### References

1. Bhatnagar, R.S., Fütterer, K., Waksman, G., *et al.* The structure of myristoyl-CoA: Protein N-myristoyltransferase. *Biochim. Biophys. Acta.* **1441(2-3)**, 162-172 (1999).
2. Martin, D.D.O., Beauchamp, E., and Berthiaume, L.G. Post-translational myristoylation: Fat matters in cellular life and death. *Biochimie* **93(1)**, 18-31 (2011).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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