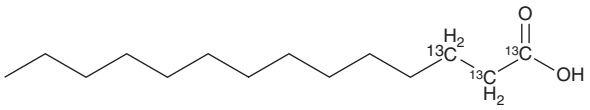
PRODUCT INFORMATION

Myristic Acid-$^{13}C_3$

Item No. 45766

CAS Registry No.:	202114-49-6
Formal Name:	tetradecanoic-1,2,3-$^{13}C_3$ acid
Synonyms:	C14:0-$^{13}C_3$, FA 14:0-$^{13}C_3$, Tetradecanoic Acid-$^{13}C_3$
MF:	$C_{11}[^{13}C]_3H_{28}O_2$
FW:	231.4
Purity:	≥98%
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-$^{13}C_3$ is intended for use as an internal standard for the quantification of myristic acid (Item Nos. 13351 | 45445) 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-$^{13}C_3$ is supplied as a solid. A stock solution may be made by dissolving the myristic acid-$^{13}C_3$ in the solvent of choice, which should be purged with an inert gas. Myristic acid-$^{13}C_3$ is sparingly soluble (1-10 mg/ml) in ethanol and 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.[1,2]

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).

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