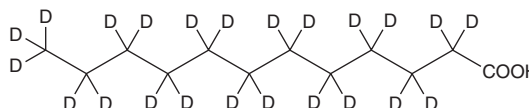


PRODUCT INFORMATION



Lauric Acid-d₂₃ Item No. 28080

CAS Registry No.: 59154-43-7
Formal Name: dodecanoic-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-d₂₃ acid
Synonyms: C12:0-d₂₃, Dodecanoic Acid-d₂₃, FA 12:0-d₂₃
MF: C₁₂HD₂₃O₂
FW: 223.5
Chemical Purity: ≥98% (Lauric Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₂₃); ≤1% d₀
Supplied as: A crystalline 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

Lauric acid-d₂₃ is intended for use as an internal standard for the quantification of lauric acid (Item No. 10006626) 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).

Lauric acid-d₂₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the lauric acid-d₂₃ in the solvent of choice, which should be purged with an inert gas. Lauric acid-d₂₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of lauric acid-d₂₃ in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

Description

Lauric acid is a medium-chain saturated fatty acid. It has been found at high levels in coconut oil.¹ Lauric acid induces the activation of NF-κB and the expression of COX-2, inducible nitric oxide synthase (iNOS), and IL-1α in RAW 264.7 cells when used at a concentration of 25 μM.²

References

1. Laureles, L.R., Rodriguez, F.M., Reaño, C.E., *et al.* Variability in fatty acid and triacylglycerol composition of the oil of coconut (*Cocos nucifera* L.) hybrids and their parentals. *J. Agric. Food Chem.* **50(6)**, 1581-1586 (2002).
2. Lee, J.Y., Sohn, K.H., Rhee, S.H., *et al.* Saturated fatty acids, but not unsaturated fatty acids, induced the expression of cyclooxygenase-2 mediated through toll-like receptor 4. *J. Biol. Chem.* **276(20)**, 16683-16689 (2001).

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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