

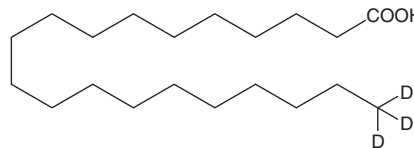
PRODUCT INFORMATION



Arachidic Acid-d₃

Item No. 27874

CAS Registry No.: 202480-70-4
Formal Name: eicosanoic-20,20,20-d₃ acid
Synonyms: Arachic Acid-d₃, Arachidate-d₃, Eicosanoate-d₃, FA 20:0-d₃, Icosanoic Acid-d₃
MF: C₂₀H₃₇D₃O₂
FW: 315.6
Chemical Purity: ≥95% (Arachidic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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

Arachidic acid-d₃ is intended for use as an internal standard for the quantification of arachidic acid (Item Nos. 9000339 | 21906) 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).

Arachidic acid-d₃ is supplied as a solid. A stock solution may be made by dissolving the arachidic acid-d₃ in the solvent of choice. Arachidic acid-d₃ is soluble in organic solvents such as ethanol and dimethyl formamide, which should be purged with an inert gas. The solubility of arachidic acid-d₃ in these solvents is approximately 0.1 and 2 mg/ml, respectively.

Description

Arachidic acid is a long-chain saturated fatty acid that has been found in peanut butter and anaerobic fungi.^{1,2} It inhibits rabbit neutrophil aggregation induced by N-formyl-methionyl-leucyl-phenylalanine (fMLP; Item No. 21495) when used at a concentration of 5 μM.³ Formulations containing arachidic acid have been used as surfactants in the manufacture of soaps and cosmetics.

References

1. Negoita, M., Mihai, A.L., Adascalului, A., *et al.* Comparison of the fatty acid composition of peanut butter by applying different fat extraction procedures. *Rev. Chim. (Bucharest)* **69(11)**, 3023-3032 (2018).
2. Koppová, I., Novotná, Z., Štrosová, L., *et al.* Analysis of fatty acid composition of anaerobic rumen fungi. *Folia Microbiol. (Praha)* **53(3)**, 217-220 (2008).
3. Naccache, P.H., Moiski, T.F., Volpi, M., *et al.* Modulation of rabbit neutrophil aggregation and degranulation by free fatty acids. *J. Leukoc. Biol.* **36(3)**, 333-340 (1984).

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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