

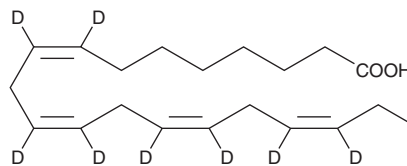
PRODUCT INFORMATION



ω -3 Arachidonic Acid-d₈

Item No. 390011

CAS Registry No.: 2692624-30-7
Formal Name: 8Z,11Z,14Z,17Z-eicosatetraenoic-8,9,11,12,14,15,17,18-d₈ acid
Synonyms: ω -3 AA-d₈, FA 20:4-d₈
MF: C₂₀H₂₄D₈O₂
FW: 312.5
Chemical Purity: \geq 98% (ω -3 Arachidonic Acid)
Deuterium Incorporation: \geq 99% deuterated forms (d₁-d₈); \leq 1% d₀
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

ω -3 Arachidonic acid-d₈ is intended for use as an internal standard for the quantification of ω -3 arachidonic acid 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).

ω -3 Arachidonic acid-d₈ is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. ω -3 Arachidonic acid-d₈ is miscible in ethanol, but solvents such as DMSO and dimethyl formamide purged with an inert gas can also be used. The solubility of ω -3 arachidonic acid-d₈ in these solvents is approximately 100 mg/ml.

Description

ω -3 Arachidonic acid-d₈ contains eight deuterium atoms at the 8, 9, 11, 12, 14, 15, 17, and 18 positions. ω -3 Arachidonic acid is a rare polyunsaturated fatty acid found in trace amounts in dietary sources. ω -3 fatty acids are now known to be essential for infant growth and development and to protect against heart disease, thrombosis, hypertension, and inflammatory and autoimmune disorders.¹ In human platelet membranes, ω -3 arachidonic acid inhibits arachidonoyl-CoA synthetase with a K_i value of 14 μ M. It also inhibits arachidonoyl-CoA synthetase in calf brain extracts with an IC₅₀ value of about 5 μ M.²

References

1. Simopoulos, A.P. Omega-3 fatty acids in health and disease and in growth and development. *Am. J. Clin. Nutr.* **54**(3), 438-463 (1991).
2. Neufeld, E.J., Sprecher, H., Evans, R.W., et al. Fatty acid structural requirements for activity of arachidonoyl-CoA synthetase. *J. Lipid Res.* **25**(3), 288-293 (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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