

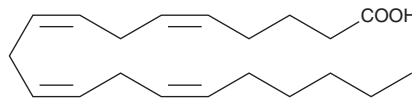
Product Information



Arachidonic Acid (peroxide free)

Catalog No. 90010.1

CAS Registry No.: 506-32-1
Formal Name: 5Z,8Z,11Z,14Z-eicosatetraenoic acid
MF: C₂₀H₃₂O₂
FW: 304.5
Purity: ≥98%
Stability: ≥6 months at -20°C
Supplied as: A solution in ethanol containing 0.1% BHT



Laboratory Procedures

For long term storage, we suggest that arachidonic acid (peroxide free) be stored as supplied at -20°C. It should be stable for at least six months.

Arachidonic acid (peroxide free) is supplied as a solution in ethanol containing 0.1% of the antioxidant BHT (2,6-Di-*tert*-butyl-4-methylphenol). If antioxidants are not acceptable in your experiment, arachidonic acid is also available without BHT (Cat# 90010). To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of arachidonic acid (peroxide free) in these solvents is approximately 100 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free aqueous solution of arachidonic acid (peroxide free) is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in basic buffers. For greater aqueous solubility, arachidonic acid (peroxide free) can be directly dissolved in 0.1 M Na₂CO₃ (1.7 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. Store aqueous solutions of arachidonic acid (peroxide free) on ice and use within 12 hours of preparation. Although the aqueous solutions of arachidonic acid (peroxide free) may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Free arachidonic acid is a transient, critical substrate for the biosynthesis of eicosanoid second messengers. Arachidonic acid oxidizes spontaneously on exposure to room air, yielding a complex mixture of fatty acid peroxides. Peroxide-free arachidonic acid is obtained after removal of the peroxides by silicic acid chromatography, followed by immediate addition of the antioxidant BHT.

Related Products

Arachidonic Acid - Cat. No. 90010 • Arachidonic Acid methyl ester - Cat. No. 90014 • Arachidonic Acid-d₈ - Cat. No. 390010

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications** at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

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For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

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