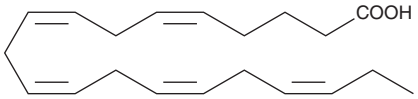
PRODUCT INFORMATION

Eicosapentaenoic Acid MaxSpec® Standard

Item No. 26415

CAS Registry No.: 10417-94-4
Formal Name: 5Z,8Z,11Z,14Z,17Z-eicosapentaenoic acid
Synonyms: EPA, FA 20:5, Timnodonic Acid
MF: $C_{20}H_{30}O_2$
FW: 302.5
Purity: ≥95%
Supplied as: A solution in ethanol; in a deactivated glass ampule
Concentration: 1 mg/ml (nominal); see certificate of analysis for verified concentration
Storage: -20°C
Stability: ≥5 years; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*
Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



Description

Eicosapentaenoic acid is an ω-3 fatty acid abundantly available in marine organisms. It is oxygenated by COX-1 and COX-2 at rates of about 5% and 30%, respectively, compared to arachidonic acid.[1] Eicosapentaenoic acid has been shown to offer protection against coronary heart disease, thrombosis, ischemic brain injury, scaly dermatitis, and some inflammatory diseases.[2,3]

Eicosapentaenoic acid MaxSpec® standard is a quantitative grade standard of eicosapentaenoic acid (Item No. 90110) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This eicosapentaenoic MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product. ***Note:*** *The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.*

References

1. Wada, M., DeLong, C.J., Hong, Y.H., *et al.* Enzymes and receptors of prostaglandin pathways with arachidonic acid-derived versus eicosapentaenoic acid-derived substrates and products. *J. Biol. Chem.* **282(31)**, 22254-22266 (2007).
2. Yerram, N.R., Moore, S.A., and Spector, A.A. Eicosapentaenoic acid metabolism in brain microvessel endothelium: Effect on prostaglandin formation. *J. Lipid Res.* **30(11)**, 1747-1757 (1989).
3. Takeuchi, H., Inoue, J., Yoshida, M., *et al.* Dietary effects of n-3 eicosapentaenoic acid on essential fatty acid-deficiency symptoms of rats. *Agric. Biol. Chem.* **53(12)**, 3225-3232 (1989).

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