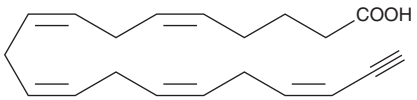
PRODUCT INFORMATION

Eicosapentaenoic Acid Alkyne

Item No. 16704

Formal Name:	5Z,8Z,11Z,14Z,17Z-eicosapentaen-19-ynoic acid
Synonyms:	Click Tag™ EPA Alkyne, EPA Alkyne, FA 20:7
MF:	$C_{20}H_{26}O_2$
FW:	298.4
Purity:	≥95%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Eicosapentaenoic acid (EPA) alkyne is supplied as a solution in ethanol. 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 and dimethyl formamide purged with an inert gas can be used. The solubility of EPA alkyne in these solvents is approximately 100 mg/ml.

EPA alkyne is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of EPA alkyne should be diluted with the aqueous buffer of choice. The solubility of EPA alkyne in PBS (pH 7.2) and 0.15 M Tris-HCl (pH 8.5) is approximately 0.1 and 1 mg/ml, repsectively. We do not recommend storing the aqueous solution for more than one day.

Description

EPA (Item No. 90110) is an ω-3 fatty acid abundantly available in marine organisms that has been shown to offer anti-inflammatory and cardiovascular benefits.[1,2] EPA alkyne is a form of EPA with an ω-terminal alkyne. The terminal alkyne group can be used in click chemistry linking reactions to tag EPA with fluorescent or biotinylated labels for analysis of its metabolism and biological activity.[3,4] Because the alkyne group is at the ω-terminus, this compound can be used to easily tag metabolites and derivatives.

References

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2. 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).
3. Kolb, H.C. and Sharpless, K.B. The growing impact of click chemistry on drug discovery. *Drug Discov. Today* **8(24)**, 1128-1137 (2003).
4. Lutz, J.-F. and Zarafshani, Z. Efficient construction of therapeutics, bioconjugates, biomaterials and bioactive surfaces using azide-alkyne "click" chemistry. *Adv. Drug Deliv. Rev.* **60(9)**, 958-970 (2008).

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