

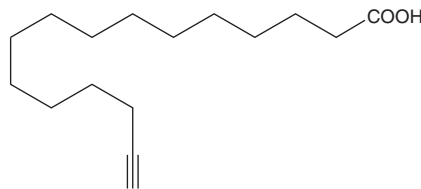
PRODUCT INFORMATION



Palmitic Acid Alkyne

Item No. 13266

CAS Registry No.: 99208-90-9
Formal Name: 15-hexadecynoic acid
Synonyms: Alk-14, Click Tag™ Palmitic Acid Alkyne
MF: C₁₆H₂₈O₂
FW: 252.4
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Palmitic acid alkyne is supplied as a crystalline solid. A stock solution may be made by dissolving the palmitic acid alkyne in the solvent of choice. Palmitic acid alkyne is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of palmitic acid alkyne in these solvents is approximately 20 mg/ml.

Palmitic acid alkyne is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, palmitic acid alkyne should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Palmitic acid alkyne has a solubility of approximately 0.15 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Protein S-palmitoylation is the post-translational acylation of proteins and serves to regulate localization, stability, and interaction with associates and substrates.¹ Palmitic acid alkyne is a form of palmitic acid (Item No. 10006627) with an ω-terminal alkyne. The terminal alkyne group can be used in linking reactions, known as click chemistry; this chemistry is characterized by high dependability and specificity of the azide-alkyne bioconjugation reactions.^{2,3} The use of palmitic acid alkyne and related lipids in isolating palmitoylated proteins has been described.⁴⁻⁶

References

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2. Kolb, H.C. and Sharpless, K.B. *Drug Discov. Today* **8(24)**, 1128-1137 (2003).
3. Lutz, J.-F. and Zarafshani, Z. *Adv. Drug Deliv. Rev.* **60**, 958-970 (2008).
4. Martin, B.R. and Cravatt, B.F. *Nat. Methods* **6(2)**, 135-138 (2009).
5. Yap, M.C., Kostiuik, M.A., Martin, D.D.O., et al. *J. Lipid Res.* **51**, 1566-1580 (2010).
6. Jiang, H., Khan, S., Wang, Y., et al. *Nature* **496**, 110-113 (2013).

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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