

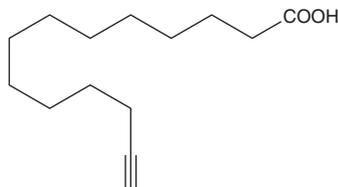
PRODUCT INFORMATION



Myristic Acid Alkyne

Item No. 13267

CAS Registry No.: 82909-47-5
Formal Name: 13-tetradecynoic acid
Synonyms: Alk-12, Click Tag™ Myristic Acid, FA 14:2, 13-alkyne Myristic Acid
MF: C₁₄H₂₄O₂
FW: 224.3
Purity: ≥98%
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

Myristic acid 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 (DMF) purged with an inert gas can be used. The solubility of myristic acid alkyne in these solvents is approximately 10 mg/ml.

Myristic acid alkyne is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of myristic acid alkyne should be diluted with the aqueous buffer of choice. Myristic acid alkyne has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Myristic acid is a 14-carbon saturated (14:0) fatty acid. *In vivo*, it is commonly added covalently to the N-terminus of proteins in a co-translational process termed N-myristoylation.¹ The sirtuin SIRT6 removes this acyl group from myristoylated TNF- α , enhancing secretion.² Myristic acid alkyne is a form of this myristic acid (Item No. 13351) with an ω -terminal alkyne. Such terminal alkyne groups can be used in linking reactions, known as click chemistry, characterized by high dependability and specificity of azide-alkyne bioconjugation reactions.^{3,4}

References

1. Farazi, T.A., Waksman, G., and Gordon, J.I. The biology and enzymology of protein N-myristoylation. *J. Biol. Chem.* **276**(43), 39501-39504 (2001).
2. Jiang, H., Khan, S., Wang, Y., et al. SIRT6 regulates TNF- α secretion through hydrolysis of long-chain fatty acyl lysine. *Nature* **496**(7443), 110-113 (2013).
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).

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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