

Product Data Sheet

Product Name: Linoleic Acid Alkyne

Cat. No.: GC40546

Chemical Properties

Cas. No. 1219038-31-9

Chemical Name 9Z,12Z-octadecadien-17-ynoic acid

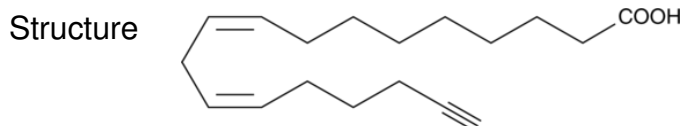
SMILES C#CCCC/C=C\C/C=C\CCCCCCCC(O)=O

Formula C₁₈H₂₈O₂ M.Wt 276.4

Solubility 100mg/mL in DMSO, 100mg/mL in DMF, 100mg/mL in ethanol Storage Store at -20°C Protect from light.

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.



Background

Linoleic acid alkyne is an ω -alkyne derivative of linoleic acid. The ω -alkyne moiety allows Cu(I)-catalyzed cycloaddition chemistry with other molecules containing an azide group.[1],[2] Linoleic acid alkyne has been used in experiments focusing on the biological roles of linoleic acid.[3],[4]

Alternatively, this modified lipid can be used to synthesize other alkyne-containing products, such as glycerophospholipids, for click chemistry.[5]

Reference:

[1]. Gaebler, A., Penno, A., Kuerschner, L., et al. A highly sensitive protocol for microscopy of alkyne lipids and fluorescently tagged or immunostained proteins. J. Lipid. Res. 57(10), 1934-1947 (2016).

[2]. Grammel, M., and Hang, H.C. Chemical reporters for biological discovery. Nat. Chem. Biol. 9(8), 475-484 (2013).

Caution: Product has not been fully validated for medical applications. For research use only.

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- [3]. Beavers, W.N., Serwa, R., Shimozu, Y., et al. ω -Alkynyl lipid surrogates for polyunsaturated fatty acids: Free radical and enzymatic oxidations. *Journal of the American Chemical Society* 136(32), 11529-11539 (2014).
- [4]. Windsor, K., Genaro-Mattos, T.C., Kim, H.-Y.H., et al. Probing lipid-protein adduction with alkynyl surrogates: application to Smith-Lemli-Opitz syndrome. *J. Lipid. Res.* 54(10), 2842-2850 (2013).
- [5]. Milne, S.B., Tallman, K.A., Serwa, R., et al. Capture and release of alkyne-derivatized glycerophospholipids using cobalt chemistry. *Nat. Chem. Biol.* 6(3), 205-207 (2010).

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