

Product Data Sheet

Product Name: 4-hydroxy Nonenal Alkyne

Cat. No.: GC42411

Chemical Properties

Cas. No. 1011268-23-7

SMILES [H]C(/C=C/C(O)CCCC#C)=O

Formula C₉H₁₂O₂

M.Wt 152.2

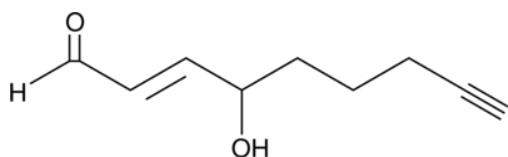
Solubility DMF: 2.5 mg/ml, DMSO: 2 mg/ml, Ethanol: 12.5 mg/ml, PBS (pH 7.2): 5 mg/ml

Storage Store at -80°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.

Structure



Background

4-hydroxy Nonenal (4-HNE) is a major aldehyde produced during the lipid peroxidation of ω -6 polyunsaturated fatty acids, such as arachidonic acid and linoleic acid. It is considered a potential causal agent in numerous diseases, including chronic inflammation, neurodegenerative diseases, atherosclerosis, diabetes, and cancer, in part because it covalently modifies DNA and proteins resulting in genetic mutations and altered cell signaling, respectively. 4-HNE Alkyne is a form of 4-HNE with a 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. Click chemistry has only recently been applied to the study of oxidized lipids.

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

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