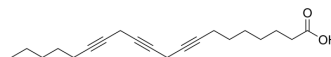


8,11,14-Eicosatriynoic acid

Cat. No.:	HY-131384
CAS No.:	34262-64-1
Molecular Formula:	C ₂₀ H ₂₈ O ₂
Molecular Weight:	300.44
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

8,11,14-Eicosatriynoic Acid, as an inhibitor of prostaglandin, leukotriene biosynthesis, and arachidonic acid-induced platelet aggregation, blocks human 12-lipoxygenase (12-LO), cyclooxygenase (COX) and 5-lipoxygenase (5-LO) with IC₅₀ values of 0.46 μM, 14 μM and 25 μM, respectively. In addition, 8,11,14-Eicosatriynoic Acid inhibits the action of slow-reacting substances of allergic reactions, with IC₅₀ value of 10 μM. Lipoxygenase is widely found in fungi, plants and animals. 12-LO involves in many important disease states and may play a role in oxidative glutamate toxicity. COX enzymes play complex roles in human physiology and pathology involving the neuronal, immune, renal, cardiovascular, gastrointestinal and reproductive systems. COX enzymes are blocked by aspirin and a variety of other NSAIDs, which makes them clinically important. 5-LO involves in cancer pathology. It is expressed by a variety of cancer cells, including colon, lung, breast, and prostate cancers, and promotes cancer cell growth and neovascularization^{[1][2][3]}. 8,11,14-Eicosatriynoic acid is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.

REFERENCES

- [1]. Goetz JM, et al. Inhibition of prostaglandin biosynthesis by triynoic acids. *Prostaglandins*. 1976 Aug;12(2):187-92.
- [2]. Sun FF, et al. Inhibition of platelet arachidonic acid 12-lipoxygenase by acetylenic acid compounds. *Prostaglandins*. 1981 Feb;21(2):333-43.
- [3]. Fitzpatrick F A. Cyclooxygenase enzymes: regulation and function[J]. *Current pharmaceutical design*, 2004, 10(6): 577-588.

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

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