Product Data Sheet

Product Name: 8,11,14-Eicosatriynoic Acid
Cat. No.: GC15338

Chemical Properties

Cas. No.	34262-64-1		
Chemical Name	8,11,14-eicosatriynoic acid		
SMILES	CCCCCC#CCC#CCC#CCCCCCCC(O)=O		
Formula	$C_{20}H_{28}O_2$	M.Wt	300.4
Solubility	≤100mg/ml in ethanol;100mg/ml in DMSO;100mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	8,11,14-Eicosatriynoic Acid		

Background

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. Also, it inhibits the actions of slow-reacting substance of anaphylaxis with an IC50 value of 10 μM [1,2].

Lipoxygenases are found widely in fungi, plants, and animals in high levels. 12-LO is involved in a number of significant disease states and may play a role in oxidative glutamate toxicity. COX enzymes play elaborate roles in human physiology and pathology, involving neuronal, immune, renal, cardiovascular, gastrointestinal, and reproductive systems. COX enzymes are blocked by aspirin and a wide variety of other non-steroidal anti-inflammatory drugs, which makes them important clinically [3]. 5-LO is involved in cancer pathobiology. It is expressed by a variety of cancer cells including

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

colon, lung, breast, and prostate and promotes cancer cell growth and neo-angiogenesis.

In vitro: Up to now, in vitro study of 8,11,14-Eicosatriynoic Acid is still in the development stage.

In vivo: Up to now, in vivo study of 8,11,14-Eicosatriynoic Acid is still in the development stage.

References:
[1]. Goetz, J., Sprecher, H., Cornwell, D., & Panganamala, R. Inhibition of prostaglandin biosynthesis by triynoic acids. Prostaglandins. 1976; 12(2): 187-192.
[2]. Sun, F., McGuire, J., Morton, D., Pike, J., Sprecher, H., & Kunau, W. Inhibition of platelet arachidonic acid 12-lipoxygenase by acetylenic acid compounds. Prostaglandins. 1981; 21(2): 333-343.
[3]. Fitzpatrick, F. Cyclooxygenase Enzymes: Regulation and Function. Current Pharmaceutical Design. 2004; 10(6): 577-588.