

12(S)-HHT

Chemical Properties

CAS No. : 54397-84-1

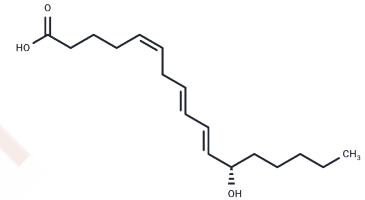
Formula: C17H28O3

Molecular Weight: 280.4

Store at low temperature

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	12(S)-HHT (12(S)-HHTrE), a fatty acid produced via the arachidonic acid metabolic pathway of cyclooxygenase (COX), is an endogenous ligand and agonist of BLT2, and the 12(S)-HHT/BLT2 axis plays a role in the maintenance of homeostatic aspects of epithelial tissues and in inflammatory responses. 12(S)-HHT inhibits the p38 MAPK/NF-κB pathway through upregulation of MKP-1, leading to reduced IL-6 synthesis in UVB-irradiated HaCaT cells.
Targets(IC50)	Endogenous Metabolite,Leukotriene Receptor
In vitro	Methods: HaCaT cells were treated with 12(S)-HHT (0, 12.5, 25, 75, 150 nM) and further incubated for 3 h. Total RNA was extracted from the cells, and IL-6 mRNA levels were analyzed by semi-quantitative RT-PCR. Results: 12(S)-HHT exhibited anti-inflammatory activity by attenuating UVB-induced IL-6 synthesis in HaCaT cells. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5663 mL	17.8317 mL	35.6633 mL
5 mM	0.7133 mL	3.5663 mL	7.1327 mL
10 mM	0.3566 mL	1.7832 mL	3.5663 mL
50 mM	0.0713 mL	0.3566 mL	0.7133 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Saeki K, et al. Identification, signaling, and functions of LTB4 receptors. *Semin Immunol.* 2017;33:30-36.
- Lee JW, et al. 12(S)-Hydroxyheptadeca-5Z,8E,10E-trienoic acid suppresses UV-induced IL-6 synthesis in keratinocytes, exerting an anti-inflammatory activity. *Exp Mol Med.* 2012;44(6):378-386.
- Okuno T, et al. Metabolism and biological functions of 12(S)-hydroxyheptadeca-5Z,8E,10E-trienoic acid. *Prostaglandins Other Lipid Mediat.* 2021;152:106502.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481