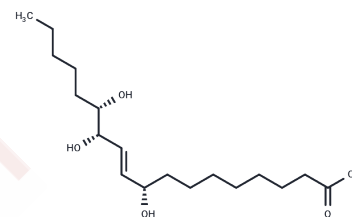


9(S),12(S),13(S)-TriHOME

Chemical Properties

CAS No. :	97134-11-7
Formula:	C ₁₈ H ₃₄ O ₅
Molecular Weight:	330.46
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	9(S),12(S),13(S)-TriHOME is a linoleic acid-derived oxylipin that has diverse biological activities. ^{1,2,3,4} It has been found in various plants and is produced in human eosinophils in a 15-lipoxygenase-dependent, soluble epoxide hydrolase-independent manner. ^{1,5} 9(S),12(S),13(S)-TriHOME inhibits antigen-induced β-hexosaminidase release from RBL-2H3 mast cells (IC ₅₀ = 28.7 μg/ml). ² It inhibits LPS-induced nitric oxide (NO) production in BV-2 microglia (IC ₅₀ = 40.95 μM). ³
Targets(IC ₅₀)	Others, Influenza Virus
In vivo	In vivo, 9(S),12(S),13(S)-TriHOME (1 g/animal) enhances the antiviral IgA and IgG antibody responses induced by a nasal influenza hemagglutinin (HA) vaccine by 5.2- and 2-fold, respectively, in mice. ⁴

Solubility Information

Solubility	Ethanol: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0261 mL	15.1304 mL	30.2608 mL
5 mM	0.6052 mL	3.0261 mL	6.0522 mL
10 mM	0.3026 mL	1.513 mL	3.0261 mL
50 mM	0.0605 mL	0.3026 mL	0.6052 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

- Hamberg, M., and Hamberg, G. Peroxygenase-catalyzed fatty acid epoxidation in cereal seeds: Sequential oxidation of linoleic acid into 9(S),12(S),13(S)-trihydroxy-10(E)-octadecenoic acid *Plant Physiol.* 110(3)807-815 (1996)
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- Kim, C.S., Kwon, O.W., Kim, S.Y., et al. Five new oxylipins from *Chaenomeles sinensis* *Lipids* 49(11)1151-1159 (2014)
- Shirahata, T., Sunazuka, T., Yoshida, K., et al. Total synthesis, elucidation of absolute stereochemistry, and adjuvant activity of trihydroxy fatty acids *Tetrahedron* 62(40)9483-9496 (2006)
- Fuchs, D., Tang, X., Johnsson, A.-K., et al. Eosinophils synthesize trihydroxyoctadecenoic acids (TriHOMEs) via a 15-lipoxygenase dependent process *Biochim. Biophys. Acta Mol. Cell Biol. Lipids* 1865(4)1586-11 (2020)

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