



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

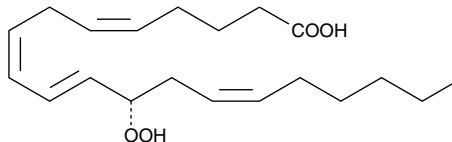
# Product Information



## 12(S)-HpETE

Item No. 44570

**CAS Registry No.:** 71774-10-2  
**Formal Name:** 12S-hydroperoxy-5Z,8Z,10E,14Z-eicosatetraenoic acid  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 336.5  
**Purity:** ≥98%  
**Stability:** ≥6 months at -80°C  
**Supplied as:** A solution in ethanol  
**UV/Vis.:** λ<sub>max</sub>: 237 nm ε: 27,000



### Laboratory Procedures

For long term storage, we suggest that 12(S)-HpETE be stored as supplied at -80°C. It should be stable for at least six months.

12(S)-HpETE is supplied as a solution in ethanol. To change the solvent, evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. 12(S)-HpETE is miscible in these solvents.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 12(S)-HpETE is needed, evaporate the ethanol under a gentle stream of nitrogen and dissolve the neat oil in the buffer of choice. The solubility of 12(S)-HpETE in PBS, pH 7.2, is approximately 0.8 mg/ml. For greater aqueous solubility, 12(S)-HpETE can be directly dissolved in 0.1 M Na<sub>2</sub>CO<sub>3</sub> (2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. 12(S)-HpETE is highly unstable in an aqueous solution. We recommend an aqueous solution of 12(S)-HpETE be used within fifteen minutes.

12(S)-HpETE is a monohydroperoxy polyunsaturated fatty acid (PUFA) produced by the action of platelet or leukocyte 12-lipoxygenase (12-LO) on arachidonic acid.<sup>1,2</sup> It activates human blood leukocyte 5-LO, resulting in the synthesis of 5(S)-HETE, leukotriene B<sub>4</sub> (LTB<sub>4</sub>), and 5(S),12(S)-DiHETE.<sup>1</sup> Rat lung metabolizes 12(S)-HpETE to 8,11,12- and 10,11,12-trihydroxycostrienoic acids.<sup>3</sup> 12(S)-HpETE is the mediator of many biological functions, including induction of c-fos and c-jun, activation of AP-1, and endothelium-dependent vasoconstriction.<sup>4,5</sup> It mediates the inhibitory synaptic response to FMRF-amide in Aplysia sensory neurons<sup>6</sup> and inhibits Ca<sup>2+</sup>/calmodulin-dependent protein kinase II from rat brain cortex.<sup>6,7</sup>

### References

1. Maclouf, J., Fruteau De Laclos, B., Borgeat, P. *Proc. Natl. Acad. Sci. USA* **79**, 6042-6046 (1982).
2. Kishimoto, K., Nakamura, M., Suzuki, H., *et al. Biochim. Biophys. Acta* **1300**, 56-62 (1996).
3. Pace-Asciak, C.R., Granström, E., Samuelsson, B. *J. Biol. Chem.* **258**, 6835-6840 (1983).
4. Nishiyama, M., Okamoto, H., Watanabe, T., *et al. Eur. J. Pharmacol.* **341**, 57-63 (1998).
5. Rao, G.N., Glasgow, W.C., Eling, T.E., *et al. J. Biol. Chem.* **271**, 27760-27764 (1996).
6. Piomelli, D., Volterra, A., Dale, N., *et al. Nature* **328**, 38-43 (1987).
7. Piomelli, D., Wang, J.K.T., Sihra, T.S., *et al. Proc. Natl. Acad. Sci. USA* **86**, 8550-8554 (1989).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/44570](http://www.caymanchem.com/catalog/44570)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 06/19/2012

### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

[custserv@caymanchem.com](mailto:custserv@caymanchem.com)

#### Web

[www.caymanchem.com](http://www.caymanchem.com)