



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Expressversand

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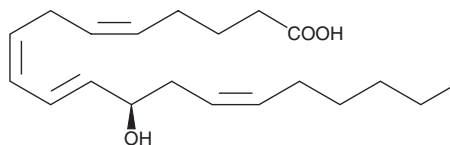
# PRODUCT INFORMATION



## 12(R)-HETE

Item No. 34560

CAS Registry No.: 82337-46-0  
Formal Name: 12R-hydroxy-5Z,8Z,10E,14Z-  
eicosatetraenoic acid  
MF: C<sub>20</sub>H<sub>32</sub>O<sub>3</sub>  
FW: 320.5  
Purity: ≥98%  
Stability: ≥1 year at -20°C  
Supplied as: A solution in ethanol  
Special Conditions: Oxygen and light sensitive  
UV/Vis.: λ<sub>max</sub>: 236 nm ε: 27,000



### Laboratory Procedures

For long term storage, we suggest that 12(R)-HETE be stored as supplied at -20°C. It should be stable for at least one year.

12(R)-HETE is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. 12(R)-HETE 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(R)-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 12(R)-HETE in PBS (pH 7.2) is approximately 0.8 mg/ml. For greater aqueous solubility, 12(R)-HETE 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. We do not recommend storing the aqueous solution for more than one day.

### Description

Biosynthesis of 12(R)-HETE in invertebrates is *via* lipoxygenation of arachidonic acid (Item No 90010).<sup>1</sup> In mammals, 12(R)-HETE can be produced by 12(R)-LOs and also by cytochrome P450 oxidation.<sup>2,3</sup> The activity of 12(R)-HETE in mammals is predominantly proinflammatory.<sup>2</sup> 12(R)-HETE exhibits dose-dependent leukocyte chemotaxis at concentrations as low as 100 nM, and lowers intraocular pressure in rabbits.

### References

1. Hawkins, D.J. and Brash, A.R. Eggs of the sea urchin, *Strongylocentrotus purpuratus*, contain a prominent (11R) and (12R) lipoxygenase activity. *J. Biol. Chem.* **262**, 7629-7634 (1987).
2. Schwartzman, M.L., Balazy, M., Masferrer, J., *et al.* 12(R)-Hydroxyeicosatetraenoic acid: A cytochrome P450-dependent arachidonate metabolite that inhibits Na<sup>+</sup>,K<sup>+</sup>-ATPase in the cornea. *Proc. Natl. Acad. Sci. USA* **84**, 8125-8129 (1987).
3. Capdevila, J., Yadagiri, P., Manna, S., *et al.* Absolute configuration of the hydroxyeicosatetraenoic acids (HETEs) formed during catalytic oxygenation of arachidonic acid by microsomal cytochrome P-450. *Biochem. Biophys. Res. Commun.* **141**, 1007-1011 (1986).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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