

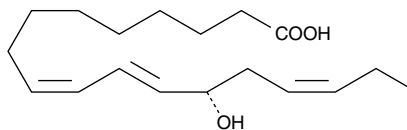
Product Information



13(S)-HOTrE

Item No. 39620

CAS Registry No: 87984-82-5
Formal Name: 13S-hydroxy-9Z,11E,15Z-octadecatrienoic acid
MF: C₁₈H₃₀O₃
FW: 294.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in ethanol
UV/Vis: λ_{max}: 234 nm ε: 23,000
Misc: Oxygen and light sensitive



Laboratory Procedures

For long term storage, we suggest that 13(S)-HOTrE be stored as supplied at -20°C. It should be stable for at least two years.

13(S)-HOTrE 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 dimethyl formamide or DMSO purged with an inert gas can be used. The solubility of 13(S)-HOTrE in these solvents is approximately 50 mg/ml.

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 13(S)-HOTrE is needed, the ethanol can be evaporated under a stream of nitrogen and the neat oil dissolved in the buffer of choice. The solubility of 13(S)-HOTrE in PBS (pH 7.2) is approximately 1 mg/ml. More concentrated aqueous solutions of 13(S)-HOTrE can be prepared using concentrated basic buffers (pH > 8.0 and ionic strength ≥ 0.1 M). Add 400 µl of cold buffer (0°C) per mg of 13(S)-HOTrE and vortex vigorously until completely dissolved. Store aqueous solutions of 13(S)-HOTrE on ice and use within twelve hours. We do not recommend storing the aqueous solution for more than one day.

13(S)-HOTrE is the 15-lipoxygenase (15-LO) product of linolenic acid. It has been detected in cell membranes and as the cholesteryl ester associated with the lesions of atherosclerosis, and in the biomembranes of soybeans exposed to 15-LO.^{1,2}

References

1. Belkner, J., Wiesner, R., Kühn, H., *et al.* The oxygenation of cholesterol esters by the reticulocyte lipoxygenase. *FEBS Lett.* **279**, 110-114 (1991).
2. Maccarrone, M., van Aarle, P.G.M., Veldink, G.A., *et al.* In vitro oxygenation of soybean biomembranes by lipoxygenase-2. *Biochim. Biophys. Acta* **1190**, 164-169 (1994).

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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.

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