**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%  
**UV/Vis.:** λ<sub>max</sub>: 234 nm  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Special Conditions:** Oxygen and light sensitive

**Description**

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.¹²

**References**


**Laboratory Procedures**

13(S)-HOTrE 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. 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.

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**References**