

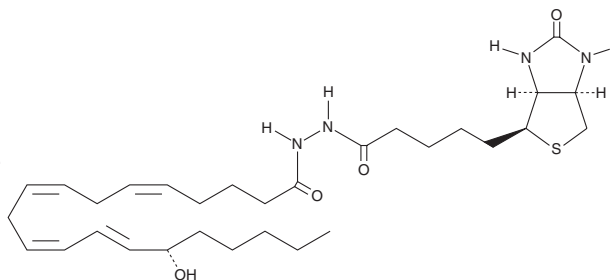
# PRODUCT INFORMATION



## 15(S)-HETE-biotin

Item No. 34722

**CAS Registry No.:** 1217461-45-4  
**Formal Name:** 15S-hydroxy-5Z,8Z,11Z,13E-eicosatetraene-(2-biotinyl)hydrazide  
**Synonym:** 5(S)-Hydroxyeicosatetraenoic Acid-biotin  
**MF:** C<sub>30</sub>H<sub>48</sub>N<sub>4</sub>O<sub>4</sub>S  
**FW:** 560.8  
**Purity:** ≥95% (may contain trace amounts of free biotin)  
**UV/Vis:** λ<sub>max</sub>: 237 nm ε: 27,000  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis

### Laboratory Procedures

15(S)-HETE-biotin 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 15(S)-HETE-biotin in these solvents is approximately 10 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 15(S)-HETE-biotin is needed, it can be prepared by evaporating the 15(S)-HETE-biotin and directly dissolving the neat oil in aqueous buffers. The solubility of 15(S)-HETE-biotin in PBS (pH 7.2) is approximately 10 µg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

15(S)-HETE is a major arachidonic acid metabolite produced by the 15-lipoxygenase pathway. It has been characterized as a potent inhibitor of 5-lipoxygenase.<sup>1,2</sup> The mechanism by which 15(S)-HETE acts as a leukotriene inhibitor is not clear. In studies with P-18 mast/basophil cells, it was shown that specific 15-HETE receptors, rather than esterification, appeared to be involved in signal transduction.<sup>3</sup> 15(S)-HETE-biotin can be used to detect 15(S)-HETE binding proteins and/or receptors.<sup>4</sup>

### References

1. Kang, L.-T. and Vanderhoek, J.Y. Characterization of specific subcellular 15-hydroxyeicosatetraenoic acid (15-HETE) binding sites on rat basophilic leukemia cells. *Biochim. Biophys. Acta* **1256**(3), 297-304 (1995).
2. Vanderhoek, J.Y., Bryant, R.W., and Bailey, J.M. Inhibition of leukotriene biosynthesis by the leukocyte product 15-hydroxy-5,8,11,13-eicosatetraenoic acid. *J. Biol. Chem.* **255**(21), 10064-10065 (1980).
3. Vonakis, B.M. and Vanderhoek, J.Y. 15-Hydroxyeicosatetraenoic acid (15-HETE) receptors. *J. Biol. Chem.* **267**(33), 23625-23631 (1992).
4. Kang, L.-T. and Vanderhoek, J.Y. Synthesis and use of a novel biotinylated probe for the chemiluminescent detection of proteins that bind 15-hydroxyeicosatetraenoic acid. *Anal. Biochem.* **250**(1), 119-122 (1997).

#### 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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