

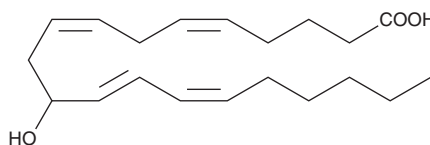
PRODUCT INFORMATION



(±)11-HETE

Item No. 34500

CAS Registry No.: 71030-38-1
Formal Name: (±)11-hydroxy-5Z,8Z,12E,14Z-eicosatetraenoic acid
Synonym: (±)11-Hydroxyeicosatetraenoic Acid
MF: $C_{20}H_{32}O_3$
FW: 320.5
Purity: ≥98%
UV/Vis.: λ_{max} : 236 nm
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

(±)11-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. (±)11-HETE is miscible in these solvents. The solubility of (±)11-HETE in 0.1 M Na_2CO_3 is approximately 2 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 (±)11-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)11-HETE in PBS, pH 7.2, is approximately 0.8 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(±)11-HETE is an oxylipin formed non-enzymatically from arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607).^{1,2} Levels of (±)11-HETE are increased in an *in vitro* model of lipid peroxidation induced by ferrous ammonium sulfate (FAS) in rat brain homogenates.³ Levels are also increased in rat liver in an *in vivo* model of lipid peroxidation induced by carbon tetrachloride (CCl_4). It has been found in skin extracts from individuals with psoriasis and in atherosclerotic plaques.^{4,5}

References

1. Powell, W.S. and Rokach, J. Biosynthesis, biological effects, and receptors of hydroxyeicosatetraenoic acids (HETEs) and oxoeicosatetraenoic acids (oxo-ETEs) derived from arachidonic acid. *Biochim. Biophys. Acta* **1851**(4), 340-355 (2014).
2. Derogis, P.B.M.C., Chaves-Filho, A.B., and Miyamoto, S. Characterization of hydroxy and hydroperoxy polyunsaturated fatty acids by mass spectrometry. *Bioactive lipids in health and disease*. Trostchansky, A. and Rubbo, H., editors, Springer (2019).
3. Guido, D.M., McKenna, R., and Mathews, W.R. Quantitation of hydroperoxy-eicosatetraenoic acids and hydroxy-eicosatetraenoic acids as indicators of lipid peroxidation using gas chromatography-mass spectrometry. *Anal. Biochem.* **209**(1), 123-129 (1993).
4. Camp, R.D.R., Mallet, A.I., Woollard, P.M., et al. The identification of hydroxy fatty acids in psoriatic skin. *Prostaglandins* **26**(3), 431-447 (1983).
5. Waddington, E., Sienuaraine, K., Puddey, I., et al. Identification and quantitation of unique fatty acid oxidation products in human atherosclerotic plaque using high-performance liquid chromatography. *Anal. Biochem.* **292**(2), 234-244 (2001).

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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