

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



# $(\pm)14(15)-EET$

Item No. 50651

CAS Registry No.: 197508-62-6

Formal Name:  $(\pm)14(15)$ -epoxy-5Z,8Z,11Z-

eicosatrienoic acid

Synonyms: (±)14,15-EET,

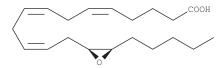
(±)14,15-EpETrE

MF:  $C_{20}H_{32}O_3$ FW: 320.5 **Chemical Purity:** ≥98%

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.



NOTE: Relative stereochemistry shown in chemical structure

### **Laboratory Procedures**

(±)14(15)-EET 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 (±)14(15)-EET 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 (±)14(15)-EET is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)14(15)-EET in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

(±)14(15)-EET is a metabolite of arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) that is formed via epoxidation of arachidonic acid by cytochrome P450. $^{1,2}$  It prevents increases in leukotriene B<sub>4</sub> (LTB<sub>4</sub>; Item No. 20110), ICAM-1, and chemokine (C-C motif) ligand 1 (CCL2) induced by oxidized LDL in primary rat pulmonary artery endothelial cells (RPAECs) when used at a concentration of 1  $\mu$ M.<sup>3</sup> (±)14(15)-EET induces dilation of preconstricted isolated canine coronary arterioles (EC<sub>50</sub> = 0.2 pM).<sup>4</sup> It reduces myocardial infarct size as a percentage of the area at risk in a canine model of ischemia-reperfusion injury induced by left anterior descending coronary artery (LAD) occlusion when administered at a dose of 0.128 mg/kg prior to occlusion or reperfusion.<sup>5</sup>

## References

- 1. Chacos, N., Falck, J.R., Wixtrom, C., et al. Biochem. Biophys. Res. Commun. 104(3), 916-922 (1982).
- 2. Oliw, E.H., Guengerich, F.P. and Oates, J.A. J. Biol. Chem. 257(7), 3771-3781 (1982).
- 3. Jiang, J.-X., Zhang, S.-J., Xiong, Y.-K., et al. PLoS One 10(6), e0128278 (2015).
- 4. Oltman, C.L., Weintraub, N.L., VanRollins, M., et al. Circ. Res. 83(9), 932-939 (1998).
- 5. Nithipatikom, K., Moore, J.M., Isbell, M.A., et al. Am. J. Physiol. Heart Circ. Physiol. 291(2), H537-H542 (2006).

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

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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