

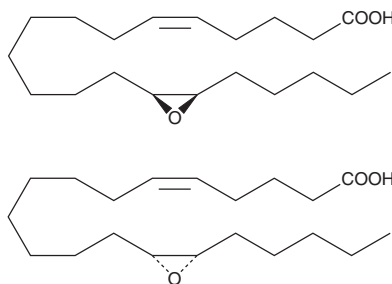
# PRODUCT INFORMATION



## 14,15-EE-5(Z)-E

Item No. 10004946

**CAS Registry No.:** 519038-92-7  
**Formal Name:** *rel*-13-[(2R,3S)-3-pentyloxiranyl]-5Z-tridecenoic acid  
**Synonym:** 14,15-Epoxyeicosa-5(Z)-enoic Acid  
**MF:** C<sub>20</sub>H<sub>36</sub>O<sub>3</sub>  
**FW:** 324.5  
**Purity:** ≥98%  
**Supplied as:** A 100 µg/ml solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

14,15-EE-5(Z)-E 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-EE-5(Z)-E in these solvents is approximately 10 mg/ml.

14,15-EE-5(Z)-E is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 14,15-EE-5(Z)-E should be diluted with the aqueous buffer of choice. The solubility of 14,15-EE-5(Z)-E in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Epoxyeicosatrienoic acids (EETs), such as 11(12)-EET and 14(15)-EET, are cytochrome P450 metabolites of arachidonic acid that have been identified as endothelium-derived hyperpolarizing factors with vasodilator activity.<sup>1</sup> 14,15-EE-5(Z)-E is a structural analog of 14,15-epoxyeicosatrienoic acids (14,15-EET) that antagonizes EET-induced relaxation of vascular smooth muscle.<sup>2</sup> Relaxation of U46619-constricted bovine arteries by 14,15-EET could be inhibited approximately 80% by 14,15-EE-5(Z)-E at a concentration of 10 µM. 14,15-EE-5(Z)-E does not appear to antagonize nitric oxide- or iloprost-mediated vascular relaxation.

### References

1. Fleming, I. Cytochrome P450 epoxygenases as EDHF synthase(s). *Pharmacol. Res.* **49(6)**, 525-533 (2004).
2. Gauthier, K.M., Deeter, C., Krishna, U.M., *et al.* 14,15-Epoxyeicosa-5(Z)-enoic acid: A selective epoxyeicosatrienoic acid antagonist that inhibits endothelium-dependent hyperpolarization and relaxation in coronary arteries. *Circ. Res.* **90(9)**, 1028-1036 (2002).

#### 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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