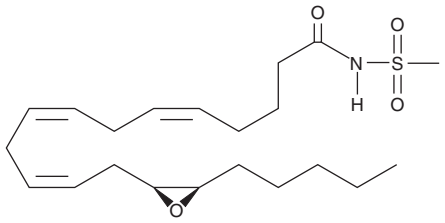
PRODUCT INFORMATION

(±)14(15)-EET-SI

Item No. 10009286

CAS Registry No.:	218461-97-3
Formal Name:	N-(methylsulfonyl)-13-(3-pentyloxiranyl)-5Z,8Z,11Z-tridecatrienamide
Synonyms:	14,15-EpETrE-SI, 14(15)-EET-SI, 14(15)-EET-sulfonimide
MF:	$C_{21}H_{35}NO_4S$
FW:	397.6
Purity:	≥95%
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥1 year



NOTE: Relative stereochemistry shown in chemical structure

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

Laboratory Procedures

(±)14(15)-EET-SI is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (±)14(15)-EET-SI in these solvents is approximately 10 mg/ml.

For maximum solubility in aqueous buffers, evaporate the methyl acetate and dissolve in ethanol. The ethanolic solution of (±)14(15)-EET-SI should be diluted with the aqueous buffer of choice. (±)14(15)-EET-SI has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

Arachidonic acid is metabolized in the vascular endothelium to epoxytrienoic acids (EETs; EETs) by cytochrome P450 enzymes. The EETs are released in response to acetylcholine, bradykinin, arachidonic acid, or cyclic stretch.[1] (±)14(15)-EET-SI is the methyl sulfonamide analog of 14(15)-EET. This substitution results in a metabolically more stable compound because it is not sensitive to β-oxidation or membrane esterification. (±)14(15)-EET-SI is equipotent to 14(15)-EET in vascular agonist activity as measured by relaxation of precontracted bovine coronary arteries.[1] In addition, 14(15)-EET and the methyl sulfonamide analog both stimulate tyrosine phosphorylation and induce mitogenesis in renal epitelial cells.[2]

References

1. Gauthier, K.M., Falck, J.R., Reddy, L.M., *et al.* 14,15-EET analogs: Characterization of structural requirements for agonist and antagonist activity in bovine coronary arteries. *Pharmacol. Res.* **49**, 515-524 (2004).
2. Chen, J.-K., Falck, J.R., Reddy, K.M., *et al.* Epoxyeicosatrienoic acids and their sulfonimide derivatives stimulate tyrosine phosphorylation and induce mitogenesis in renal epithelial cells. *J. Biol. Chem.* **273(44)**, 29254-29261 (1998).

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