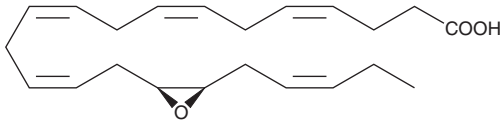
PRODUCT INFORMATION

(±)16(17)-EpDPA MaxSpec® Standard

Item No. 26240

CAS Registry No.: 155073-46-4
Formal Name: (±)16,17-epoxy-4Z,7Z,10Z,13Z,19Z-docosapentaenoic acid
Synonyms: (±)16,17 EDP, (±)16,17-epoxy Docosapentaenoic Acid, (±)16,17-epoxy DPA, (±)16,17-EpDPE
MF: $C_{22}H_{32}O_3$
FW: 344.5
Purity: ≥95%
Supplied as: A solution in ethanol; in a deactivated glass ampule
Concentration: 100 µg/ml (nominal); see certificate of analysis for verified concentration
Storage: -20°C
Stability: ≥5 years; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*
Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



NOTE: Relative stereochemistry shown in chemical structure

Description

EDHF (endothelium-derived hyperpolarizing factor) is an unidentified mediator released from vascular endothelial cells in response to acetylcholine and bradykinin which is distinct from the NOS-(nitric oxide) and COX-derived (prostacyclin) vasodilators.[1,2] Cytochrome P450 (CYP450) metabolism of polyunsaturated fatty acids produces epoxides such as (±)14(15)-EET (Item No. 50651) which are prime candidates for the actual active mediator.[3] However, the CYP450 metabolites of eicosapentaenoic acid (EPA; Item No. 90110) and docosahexaenoic acid (DHA; Item No. 90310) have been little studied relative to arachidonate epoxygenase metabolites. (±)16(17)-EpDPA is the DHA homolog of (±)14(15)-EpETrE, derived *via* epoxidation of the 16,17-double bond of DHA. The EDHF activity of (±)16(17)-EpDPA has not yet been determined. The epoxygenase metabolites of DHA have also been detected in a mouse inflammation model.[4]

(±)16(17)-EpDPA MaxSpec® standard is a quantitative grade standard of (±)16(17)-EpDPA (Item No. 10174) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This (±)16(17)-EpDPA MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product. ***Note:*** *The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.*

References

1. Chataigneau, T., Félétou, M., Duhault, J., *et al. Br. J. Pharmacol.* **123(3)**, 574-580 (1998).
2. Fisslthaler, B., Popp, R., Kiss, L., *et al. Nature* **401(6752)**, 493-497 (1999).
3. Baron, A., Frieden, M., and Bény, J.-L. *J. Physiol.* **504(Pt 3)**, 537-543 (1997).
4. Serhan, C.N., Hong, S., Gronert, K., *et al. J. Exp. Med.* **196(8)**, 1025-1037 (2002).

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