

PRODUCT INFORMATION



(±)10(11)-DiHDPA

Item No. 18174

CAS Registry No.: 1345275-22-0
Formal Name: (±)10,11-dihydroxy-4Z,7Z,13Z,16Z,19Z-docosapentaenoic acid
Synonym: (±)10,11-DiHDPE
MF: C₂₂H₃₄O₄
FW: 362.5
Purity: ≥98%
Supplied as: A 500 µg/ml solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

(±)10(11)-DiHDPA 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 (±)10(11)-DiHDPA 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 (±)10(11)-DiHDPA is needed, it can be prepared by evaporating the (±)10(11)-DiHDPA and directly dissolving the neat oil in aqueous buffers. The solubility of (±)10(11)-DiHDPA in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(±)10(11)-DiHDPA is produced from cytochrome P450 epoxygenase action on docosahexaenoic acid (DHA; Item No. 90310). It has been shown to inhibit VEGF-induced angiogenesis in mice and may have additional anti-inflammatory and anti-tumor effects.^{1,2}

References

1. Zhang, G., Panigrahy, D., Mahakian, L.M., *et al.* Epoxy metabolites of docosahexaenoic acid (DHA) inhibit angiogenesis, tumor growth, and metastasis. *Proc. Natl. Acad. Sci. USA* **110(16)**, 6530-6535 (2013).
2. Zhang, G., Kodani, S., and Hammock, B.D. Stabilized epoxygenated fatty acids regulate inflammation, pain, angiogenesis and cancer. *Prog. Lipid Res.* **53**, 108-123 (2014).

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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