

Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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PRODUCT INFORMATION



(±)12-HEPE

Item No. 32540

| CAS Registry No.: | 81187-21-5 | |
|--|-----------------------------------|-----|
| Formal Name: | (±)-12-hydroxy-5Z,8Z,10E,14Z,17Z- | |
| | eicosapentaenoic acid | |
| MF: | $C_{20}H_{30}O_3$ | |
| FW: | 318.5 | |
| Purity: | ≥ 98% | |
| UV/Vis.: | λ _{max} : 237 nm | |
| Supplied as: | A solution in ethanol | 011 |
| Storage: | -20°C | |
| Stability: | ≥2 years | |
| Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis. | | |

Laboratory Procedures

 (\pm) 12-HEPE 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. (±)12-HEPE is miscible in these solvents.

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 (±)12-HEPE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)12-HEPE in PBS (pH 7.2) is approximately 0.8 mg/ml. For greater aqueous solubility, (±)12-HEPE can be directly disolved in 0.1M Na₂CO₂ (2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

Description

(±)12-HEPE is produced by non-enzymatic oxidation of EPA. It contains equal amounts of 12(S)-HEPE and 12(R)-HEPE. The biological activity of (±)12-HEPE is likely mediated by one of the individual isomers, most commonly the 12(S) isomer in mammalian systems. 12-HEPE inhibits platelet aggregation with the same potency as 12-HETE, exhibiting IC₅₀ values of 24 and 25 μ M, respectively.¹ These compounds are also equipotent as inhibitors of U-46619-induced contraction of rat aorta (IC_{50} = 8.6-8.8 μ M).²

References

- 1. Takenaga, M., Hirai, A., Terano, T., et al. Comparison of the in vitro effect of eicosapentaenoic acid (EPA)derived lipoxygenase metabolites on human platelet function with those of arachidonic acid. Thromb. Res. 37, 373-384 (1986).
- 2. Karanian, J.W., Kim, H.Y., and Salem, N., Jr. Inhibitory effects of n-6 and n-3 hydroxy fatty acids on thromboxane (U46619)-induced smooth muscle contraction. J. Pharmacol. Exp. Ther. 270, 1105-1109 (1994).

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

SAFFTY 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.

WARRANTY AND LIMITATION OF REMEDY

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