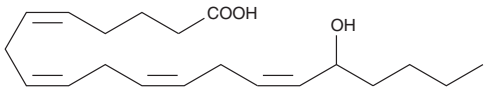
PRODUCT INFORMATION

(±)16-HETE

Item No. 10010635

CAS Registry No.:	128914-46-5
Formal Name:	(±)16-hydroxy-5Z,8Z,11Z,14Z-eicosatetraenoic acid
Synonym:	(±)16-Hydroxyeicosatetraenoic Acid
MF:	$C_{20}H_{32}O_3$
FW:	320.5
Purity:	≥98%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

(±)16-HETE 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. (±)16-HETE is miscible in these solvents. The solubilty of (±)16-HETE in 0.1 M Na_2CO_3 is approximately 2 mg/ml

(±)16-HETE is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (±)16-HETE should be diluted with the aqueous buffer of choice. The solubility of (±)16-HETE in PBS (pH 7.2) is approximately 0.8 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Electrolyte and fluid transport in the kidney are regulated in part by arachidonic acid and its metabolites. (±)16-HETE is the racemic version of a minor CYP450 metabolite of arachidonic acid released by the kidney upon angiotensin II stimulation. The biological activity of 16-HETE is stereospecific. 16(R)-HETE dose-dependently stimulates vasodilation of the rabbit kidney, however 16(S)-HETE does not affect perfusion pressure.[1] At a concentration of 2 µM the (S)-enantiomer of 16-HETE inhibits proximal tubule ATPase activity by as much as 60%, whereas the (R)-isomer has negligible effects on ATPase activity.[1]

Reference

1. Carroll, M.A., Balazy, M., Margiotta, P., *et al.* Cytochrome P-450-dependent HETEs: Profile of biological activity and stimulation by vasoactive peptides. *Am. J. Physiol.* **271(4 Pt 2)**, R863-R869 (1996).

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