(±)5-HETE

Item No. 34210

CAS Registry No.: 73307-52-5
Formal Name: (±)5-hydroxy-6E,8Z,11Z,14Z-eicosatetraenoic acid
MF: C20H32O3
FW: 320.5
Purity: ≥97%
UV/Vis.: λmax: 236 nm ε: 27,000
Supplied as: A solution in ethanol
Storage: -20°C
Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly

Special Conditions: Oxygen and light sensitive

Laboratory Procedures

(±)5-HETE is supplied as a solution in ethanol. To change the solvent, evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as dimethyl formamide or DMSO purged with an inert gas can be used. The solubility of (±)5-HETE in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made just 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. Organic solvent-free solutions of (±)5-HETE can be prepared using concentrated basic buffers (pH > 8.0 and ionic strength ≥ 0.1 M). Add 400 μl of cold buffer (0°C) per mg of (±)5-HETE and vortex vigorously until completely dissolved. Store aqueous solutions of (±)5-HETE on ice and use within twelve hours.

Description

(±)5-HETE is one of the six monohydroxylated products resulting from the non-enzymatic oxidation of arachidonic acid. It contains an equal mixture of (S)- and (R)-isomers. 5(S)-HETE is the 5-lipoxygenase metabolite of arachidonic acid. (±)5-HETE is a potent neutrophil-aggregating agent, inducing a half-maximal response at 200 nM.1

Reference


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