

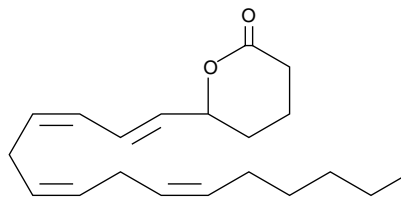
# Product Information



## (±)5-HETE lactone

Item No. 34215

**CAS Registry No.:** 73279-37-5  
**Formal Name:** (±)-5-hydroxy-6E,8Z,11Z,14Z-eicosatetraenoic acid, 1,5-lactone  
**MF:** C<sub>20</sub>H<sub>30</sub>O<sub>2</sub>  
**FW:** 302.5  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in acetonitrile  
**UV/Vis.:** λ<sub>max</sub>: 236 nm ε: 27,000



### Laboratory Procedures

For long term storage, we suggest that (±)5-HETE lactone be stored as supplied at -20°C. It should be stable for at least one year.

(±)5-HETE lactone is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO, ethanol, and dimethyl formamide purged with an inert gas can be used. The solubility of (±)5-HETE lactone in these solvents is approximately 50 mg/ml. Avoid storing (±)5-HETE lactone in ethanol for periods of time longer than three months. The ethanol will cause the lactone to slowly open.

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 (±)5-HETE lactone is needed, it can be prepared by evaporating the acetonitrile and directly dissolving the neat oil in aqueous buffers. The solubility of (±)5-HETE lactone in PBS (pH 7.2) is approximately 1mg/ml. Avoid adding (±)5-HETE lactone to basic solutions (pH > 7.4) as base will cause the lactone function to open. We do not recommend storing the aqueous solution for more than one day.

(±)5-HETE lactone is a cyclic ester formed by the acid catalyzed nucleophilic addition of the C-5 hydroxyl to the C-1 carboxyl of (±)5-HETE. (±)5-HETE lactone is an inhibitor of 5-lipoxygenase from rat basophilic leukemia cells with an IC<sub>50</sub> value of 27 μM. The lactone is several times more potent than the linear (±)5-HETE.<sup>1</sup>

### Reference

1. Kerdesky, F.A.J., Schmidt, S.P., Holms, J.H., *et al.* Synthesis and 5-lipoxygenase inhibitory activity of 5-hydroperoxy-6,8,11,14-eicosatetraenoic acid analogues. *J. Med. Chem.* **30**, 1177-1186 (1987).

### Related Products

(±)HPLC Mixture - Item No. 34002 • (±)5-HETE - Item No. 34210 • 5(S)-HETE lactone - Item No. 34240 • NDGA - Item No. 70300 • REV 5901 - Item No. 70600 • Arachidonic Acid - Item No. 90010 • 5,6-dehydro Arachidonic acid - Item No. 90020 • Eicosatetraenoic acid - Item No. 90120 • Eicosatrienoic acid - Item No. 90200

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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