

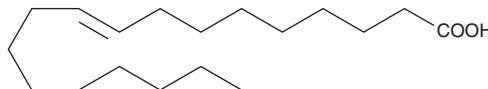
# Product Information



## Elaidic Acid

Catalog No. 90250

**CAS Registry No.:** 112-79-8  
**Formal Name:** 9E-octadecenoic acid  
**Synonym:** *trans* Oleic Acid  
**MF:** C<sub>18</sub>H<sub>34</sub>O<sub>2</sub>  
**FW:** 282.5  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that elaidic acid be stored as supplied at -20°C. It should be stable for at least two years.

Elaidic acid 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 or dimethyl formamide purged with an inert gas can be used. The solubility of elaidic acid in these solvents is approximately 100 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 aqueous solution of elaidic acid is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in basic buffers. The solubility of elaidic acid in 0.15 M Tris-HCl buffer (pH 8.5) is approximately 1 mg/ml. Store aqueous solutions of elaidic acid on ice and use within 12 hours of preparation. Although the aqueous solutions of elaidic acid may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Elaidic acid is the 9-*trans* isomer of oleic acid. Elaidic acid is a polyunsaturated fatty acid (PUFA) which can be found in plant tissues and commercially in cooking oils. In human platelets incubated with arachidonic acid, elaidic acid inhibits HHT and HETE formation while inducing prostaglandin and thromboxane synthesis.<sup>1</sup>

### Reference

1. Srivastava, K.C. and Awasthi, K.K. A comparative study on the effect of *cis* (oleic, linoleic) and *trans* (elaidic, linoelaidic) fatty acids on the *in vitro* prostaglandin biosynthesis in human blood platelets from (1-<sup>14</sup>C) arachidonic acid. *Prostaglandins Leukot. Med.* **9**, 669-684 (1982).

### Cayman Chemical

**Mailing address**  
1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

**Phone**  
(800) 364-9897  
(734) 971-3335

**Fax**  
(734) 971-3640

**E-Mail**  
custserv@caymanchem.com

**Web**  
www.caymanchem.com

**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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