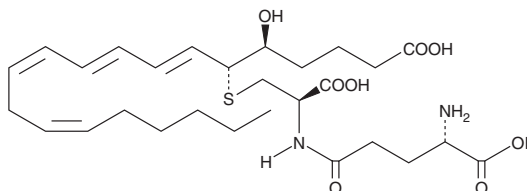


# PRODUCT INFORMATION

## Leukotriene F<sub>4</sub> Item No. 20520

**CAS Registry No.:** 83851-42-7  
**Formal Name:** 5S-hydroxy-6R-(S-γ-glutamylcysteinyl)-7E,9E,11Z,14Z-eicosatetraenoic acid

**Synonym:** LTF<sub>4</sub>  
**MF:** C<sub>28</sub>H<sub>44</sub>N<sub>2</sub>O<sub>8</sub>S  
**FW:** 568.7  
**Purity:** ≥97%\*  
**UV/Vis.:** λ<sub>max</sub>: 280 nm ε: 40,000  
**Supplied as:** A solution in methanol  
**Storage:** -80°C  
**Stability:** ≥1 year  
**Special Conditions:** Light Sensitive



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

### Laboratory Procedures

Leukotriene F<sub>4</sub> (LTF<sub>4</sub>) is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol 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 LTF<sub>4</sub> in these solvents is approximately 50 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 solution of LTF<sub>4</sub> is needed, it can be prepared by evaporating the methanol and directly dissolving the neat oil in aqueous buffers. The solubility of LTF<sub>4</sub> in PBS (pH 7.2) is approximately 100 µg/ml. Be certain that your buffers are free of oxygen, transition metal ions, and redox active compounds. We do not recommend storing the aqueous solution for more than one day.

### Description

LTF<sub>4</sub> is a cysteinyl-leukotriene produced *in vitro*, but not reported to date *in vivo*. It is formed by the incubation of LTE<sub>4</sub> with γ-glutamyl transpeptidase and glutathione. LTF<sub>4</sub> is a weak agonist in its ability to contract vascular smooth muscle.<sup>1</sup> The rank order of potency of the cysteinyl-leukotrienes to contract vascular smooth muscle is LTD<sub>4</sub> > LTC<sub>4</sub> > LTE<sub>4</sub> >> LTF<sub>4</sub>.<sup>1,2</sup>

### References

1. Bernstrom, K. and Hammerstrom, S. A novel leukotriene formed by transpeptidation of leukotriene E<sub>4</sub>. *Biochem. Biophys. Res. Commun.* 109, 800-804 (1982).
2. Lord, A., Charleson, S., Letts, L.G. Leukotriene F<sub>4</sub> and the release of arachidonic acid metabolites from perfused guinea pig lungs *in vitro*. *Prostaglandins* 29, 651-660 (1985).

\*All cysteinyl leukotrienes may contain a small amount of the 11-*trans* isomer. The purity for all such leukotrienes excludes the 1-4% *trans* isomer which may be present.

#### WARNING

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

#### SAFETY 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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