



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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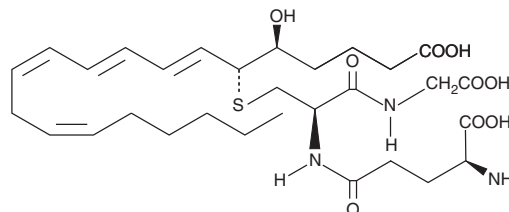
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# PRODUCT INFORMATION



## Leukotriene C<sub>4</sub> Item No. 20210

**CAS Registry No.:** 72025-60-6  
**Formal Name:** 5S-hydroxy-6R-(S-glutathionyl)-7E,9E,11Z,14Z-eicosatetraenoic acid  
**Synonym:** LTC<sub>4</sub>  
**MF:** C<sub>30</sub>H<sub>47</sub>N<sub>3</sub>O<sub>9</sub>S  
**FW:** 625.8  
**Purity:** ≥97%\*  
**UV/Vis.:** λ<sub>max</sub>: 280 nm ε: 40,000  
**Supplied as:** A solution in ethanol  
**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 C<sub>4</sub> (LTC<sub>4</sub>) 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 and dimethyl formamide purged with an inert gas can be used. The solubility of LTC<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 LTC<sub>4</sub> is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of LTC<sub>4</sub> in PBS (pH 7.2) is approximately 100 µg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

LTC<sub>4</sub> is the parent cysteinyl leukotriene produced by the addition of glutathione to LTA<sub>4</sub>. LTC<sub>4</sub> is produced by neutrophils, macrophages, mast cells, and by *trans*-cellular metabolism in platelets.<sup>1</sup> It is one of the constituents of slow-reacting substance of anaphylaxis (SRS-A) and exhibits potent smooth muscle contracting activity.<sup>2</sup> LTC<sub>4</sub>-induced bronchoconstriction and enhanced vascular permeability contribute to the pathogenesis of asthma and acute allergic hypersensitivity.<sup>3,4</sup> The concentration of LTC<sub>4</sub> required to produce marked contractions of lung parenchymal strips and isolated tracheal rings is about 1 nM.<sup>4</sup>

### References

1. Maclouf, J.A. and Murphy, R.C. Transcellular metabolism of neutrophil-derived leukotriene A<sub>4</sub> by human platelets. A potential cellular source of leukotriene C<sub>4</sub>. *J. Biol. Chem.* **263**, 174-181 (1988).
2. Piper, P.J. Formation and actions of leukotrienes. *Physiol. Rev.* **64**, 744-761 (1984).
3. Samuelsson, B. Leukotrienes: Mediators of immediate hypersensitivity reactions and inflammation. *Science* **220**, 568-575 (1983).
4. Lefer, A.M. Leukotrienes as mediators of ischemia and shock. *Biochem. Pharmacol.* **35**, 123-127 (1986).

\*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.

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