

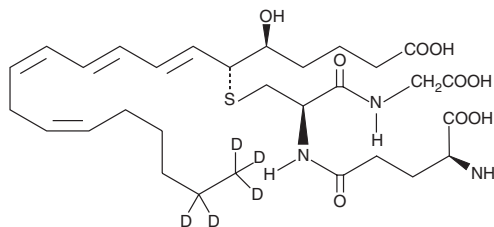
# PRODUCT INFORMATION



## Leukotriene C<sub>4</sub>-d<sub>5</sub>

Item No. 10006198

CAS Registry No.: 1441421-73-3  
Formal Name: 5S-hydroxy-6R-(S-glutathionyl)-7E,9E,11Z,14Z-d<sub>5</sub>-eicosatetraenoic acid  
Synonym: LTC<sub>4</sub>-d<sub>5</sub>  
MF: C<sub>30</sub>H<sub>42</sub>D<sub>5</sub>N<sub>3</sub>O<sub>9</sub>S  
FW: 630.8  
Chemical Purity: ≥97% Leukotriene C<sub>4</sub>  
Deuterium  
Incorporation: ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>  
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>-d<sub>5</sub> (LTC<sub>4</sub>-d<sub>5</sub>) is intended for use as an internal standard for the quantification of LTC<sub>4</sub> by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

LTC<sub>4</sub>-d<sub>5</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>-d<sub>5</sub> in these solvents is approximately 50 mg/ml.

### 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, and 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).

#### 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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