

# PRODUCT INFORMATION



## Leukotriene A<sub>4</sub> Hydrolase (human, recombinant)

Item No. 10007817

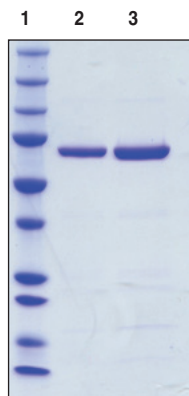
### Overview and Properties

**Synonym:** LTA<sub>4</sub>H  
**Source:** Active recombinant protein expressed in *E. coli* with C-terminal His-tag  
**Amino Acids:** 1-610  
**Uniprot No.:** P09960  
**Molecular Weight:** ~69 kDa  
**Storage:** -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein  
**Stability:** ≥1 year  
**Purity:** ≥90% estimated by SDS-PAGE  
**Supplied in:** 100 mM Tris, pH 8.0, with 100 mM potassium chloride and 20% glycerol  
**Protein Concentration:** *batch specific* mg/ml  
**Activity:** *batch specific* U/ml  
**Specific Activity:** *batch specific* U/mg

**Unit Definition:** One unit is the amount of enzyme required to release 1 mmol per min of 4-nitro-anilide (pNA) at 26°C in a reaction containing 40 mM L-Ala-pNA (CAS No. 31796-55-1) in 50 mM Tris pH 8.0, measured by absorbance at 405 nm.

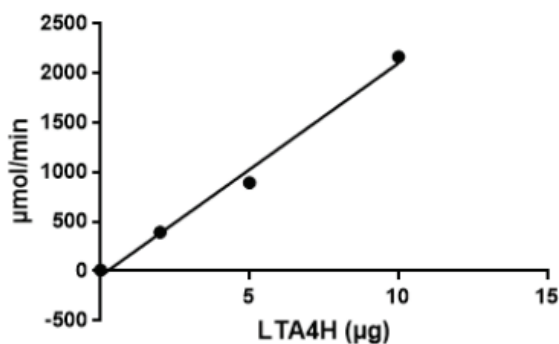
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: LTA<sub>4</sub> Hydrolase (2 µg)  
Lane 3: LTA<sub>4</sub> Hydrolase (4 µg)

Representative gel image shown; actual purity may vary between each batch.



LTA<sub>4</sub> Hydrolase Activity

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  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Leukotriene A<sub>4</sub> hydrolase (LTA<sub>4</sub>H) is a bifunctional zinc metalloenzyme that converts LTA<sub>4</sub> into LTB<sub>4</sub>, a potent neutrophil chemoattractant.<sup>1</sup> In addition to the hydrolase activity, LTA<sub>4</sub>H also exhibits anion-dependent aminopeptidase activity.<sup>1,2</sup> LTA<sub>4</sub>H is a potential new drug target for a variety of indications associated with leukocyte infiltration to sites of inflammation. Cayman's LTA<sub>4</sub>H (human, recombinant) has been expressed and purified from *E. coli*. Both the epoxide hydrolase and aminopeptidase activities of the enzyme are functional as assessed by measurement of the separate enzyme activities. The enzyme therefore has application for the screening of inhibitors of LTB<sub>4</sub> synthesis.

## References

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1. Haeggström, J.Z. Leukotriene A<sub>4</sub> hydrolase/aminopeptidase, the gatekeeper of chemotactic leukotriene B<sub>4</sub> biosynthesis. *J. Biol. Chem.* **279**(49), 50639-50642 (2004).
2. Rudberg, P.C., Tholander, F., Andberg, M., *et al.* Leukotriene A<sub>4</sub> hydrolase: Identification of a common carboxylate recognition site for the epoxide hydrolase and aminopeptidase substrates. *J. Biol. Chem.* **279**(26), 27376-27382 (2004).

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