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Recombinant Human Leukotriene A4 Hydrolase Protein

Catalog No.: RP03209 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	4048	P09960

Tags
C-His

Synonyms
Leukotriene A-4 hydrolase; LTA-4 hydrolase; Leukotriene A(4) hydrolase; Tripeptide aminopeptidase LTA4H

Product Information

Source	Purification
Baculovirus-Insect Cells	≥ 95 % as determined by SDS-PAGE.≥ 95 % as determined by HPLC.

Calculated MW	Observed MW
70.7 kDa	58-68 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

400-999-6126

cn.market@abclonal.com.cn

Background

Leukotriene A-4 hydrolase, also known as LTA-4 hydrolase, Leukotriene A (4) hydrolase, LTA4H, and LTA4, is a cytoplasm protein that belongs to the peptidase M1 family. LTA4H hydrolyzes an epoxide moiety of leukotriene A4 (LTA-4) to form leukotriene B4 (LTB-4). This enzyme also has some peptidase activity. The leukotrienes (LTs) are a class of structurally related lipid mediators involved in the development and maintenance of inflammatory and allergic reactions. In the biosynthesis of LTs, arachidonic acid was converted into the unstable intermediate epoxide LTA4, which may, in turn, be conjugated with glutathione to form the spasmogenic LTC4, or hydrolyzed into the pro-inflammatory lipid mediator LTB4 in a reaction catalyzed by Leukotriene A4 hydrolase (LTA4H). LTB4 is a classical chemoattractant of human neutrophils and triggers adherence and aggregation of leukocytes to vascular endothelium, and also modulates immune responses. As a bifunctional zinc metalloenzyme, LTA4H also exhibits an anion-dependant arginyl aminopeptidase activity of high efficiency and specificity in addition to its epoxide hydrolase activity. LTA4H is regarded as a therapeutic target for inflammation.

Basic Information

Description
Recombinant Human Leukotriene A4 Hydrolase Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Asp611) of human Leukotriene A4 Hydrolase (Accession #NP_000886.1) fused with His tag at the C-terminus.

Bio-Activity
Measured by its ability to cleave the fluorogenic peptide substrate, Arg-7-amido-4-methylcoumarin (R-AMC) . The specific activity is >15 pmoles/min/μg.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

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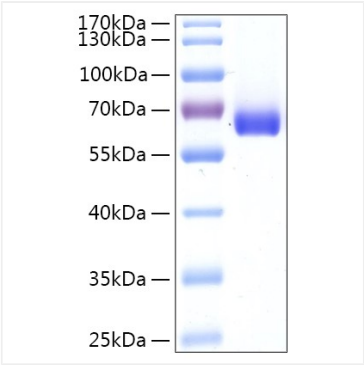
Validation Data



Recombinant Human Leukotriene A4 Hydrolase Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.