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Leukotriene A4 Hydrolase Rabbit mAb

Catalog # AP75672

Product Information

Application	WB, IHC-P, FC
Primary Accession	P09960
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	69285

Additional Information

Gene ID	4048
Other Names	LTA4H
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:100-1:1000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	LTA4H
Synonyms	LTA4
Function	Bifunctional zinc metalloenzyme that comprises both epoxide hydrolase (EH) and aminopeptidase activities. Acts as an epoxide hydrolase to catalyze the conversion of LTA4 to the pro-inflammatory mediator leukotriene B4 (LTB4) (PubMed:11917124, PubMed:12207002, PubMed:15078870, PubMed:18804029, PubMed:1897988, PubMed:1975494, PubMed:2244921, PubMed:2996528). Can utilize LTA5 less effectively as a substrate than LTA4, and produce LTB5 (PubMed:2996528). Also has aminopeptidase activity, with high affinity for N-terminal arginines of various synthetic tripeptides (PubMed:18804029, PubMed:20813919). In addition to its pro-inflammatory EH activity, may also counteract inflammation by its aminopeptidase activity, which inactivates by cleavage another neutrophil attractant, the tripeptide Pro-Gly-Pro (PGP), a bioactive fragment of collagen generated by the action of matrix metalloproteinase-9 (MMP9) and prolylendopeptidase (PREPL)

(PubMed:20813919, PubMed:24591641). Involved also in the biosynthesis of resolvin E1 and 18S-resolvin E1 from eicosapentaenoic acid, two lipid mediators that show potent anti-inflammatory and pro-resolving actions (PubMed:21206090).

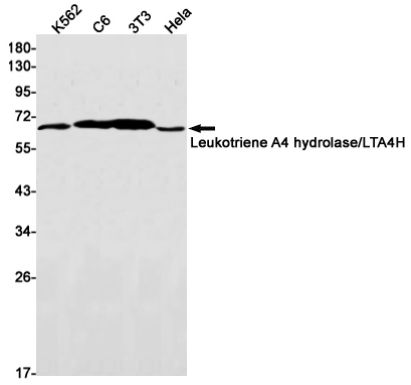
Cellular Location Cytoplasm.

Tissue Location Isoform 1 and isoform 2 are expressed in monocytes, lymphocytes, neutrophils, reticulocytes, platelets and fibroblasts

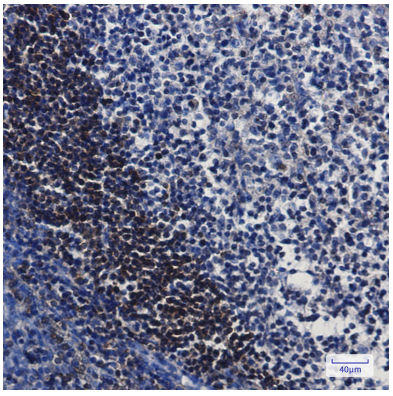
Background

The protein encoded by this gene is an enzyme that contains both hydrolase and aminopeptidase activities. The hydrolase activity is used in the final step of the biosynthesis of leukotriene B4, a proinflammatory mediator. The aminopeptidase activity has been shown to degrade proline-glycine-proline (PGP), a neutrophil chemoattractant and biomarker for chronic obstructive pulmonary disease (COPD). Several transcript variants encoding different isoforms have been found for this gene.

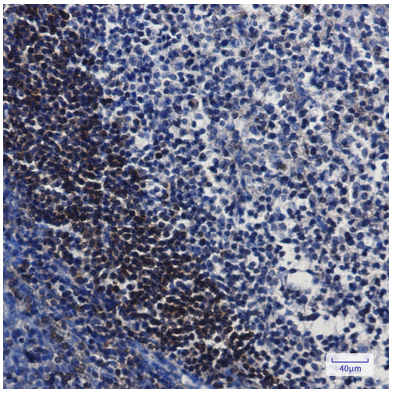
Images



Western blot analysis of Leukotriene A4 hydrolase/LTA4H in K562, C6, 3T3, Hela lysates using Leukotriene A4 Hydrolase antibody.



Immunohistochemistry analysis of paraffin-embedded Human tonsil using Leukotriene A4 hydrolase antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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