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LTC4S Rabbit pAb

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Catalog # AP57084

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q16873
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16567
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LTC4S
Epitope Specificity	51-150/150
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus outer membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein
SIMILARITY	Belongs to the MAPEG family.
SUBUNIT	Homotrimer. Interacts with ALOX5AP and ALOX5.
DISEASE	LTC4 synthase deficiency is associated with a neurometabolic developmental disorder characterized by muscular hypotonia, psychomotor retardation, failure to thrive, and microcephaly.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The MAPEG (Membrane Associated Proteins in Eicosanoid and Glutathione metabolism) family includes a number of human proteins, several of which are involved the production of leukotrienes. This gene encodes an enzyme that catalyzes the first step in the biosynthesis of cysteinyl leukotrienes, potent biological compounds derived from arachidonic acid. Leukotrienes have been implicated as mediators of anaphylaxis and inflammatory conditions such as human bronchial asthma. This protein localizes to the nuclear envelope and adjacent endoplasmic reticulum. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	4056
Other Names	Leukotriene C4 synthase, LTC4 synthase, 4.4.1.20, Glutathione S-transferase LTC4, 2.5.1.-, Leukotriene-C(4) synthase, Leukotriene-C4 synthase, LTC4S
Target/Specificity	Detected in lung, platelets and the myelogenous leukemia cell line KG-1 (at protein level). LTC4S activity is present in eosinophils, basophils, mast cells, certain phagocytic mononuclear cells, endothelial cells, vascular smooth

	muscle cells and platelets.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	LTC4S
Function	Catalyzes the conjugation of leukotriene A4 with reduced glutathione (GSH) to form leukotriene C4 with high specificity (PubMed:23409838, PubMed:27365393, PubMed:27791009, PubMed:7937884, PubMed:9153254). Can also catalyze the transfer of a glutathionyl group from glutathione (GSH) to 13(S),14(S)-epoxy-docosahexaenoic acid to form maresin conjugate in tissue regeneration 1 (MCTR1), a bioactive lipid mediator that possess potent anti-inflammatory and proresolving actions (PubMed:27791009).
Cellular Location	Nucleus outer membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Nucleus membrane; Multi-pass membrane protein
Tissue Location	Detected in lung, platelets and the myelogenous leukemia cell line KG-1 (at protein level). LTC4S activity is present in eosinophils, basophils, mast cells, certain phagocytic mononuclear cells, endothelial cells, vascular smooth muscle cells and platelets

Background

The MAPEG (Membrane Associated Proteins in Eicosanoid and Glutathione metabolism) family includes a number of human proteins, several of which are involved the production of leukotrienes. This gene encodes an enzyme that catalyzes the first step in the biosynthesis of cysteinyl leukotrienes, potent biological compounds derived from arachidonic acid. Leukotrienes have been implicated as mediators of anaphylaxis and inflammatory conditions such as human bronchial asthma. This protein localizes to the nuclear envelope and adjacent endoplasmic reticulum. [provided by RefSeq, Jul 2008]

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.