

Product Name: 5-LO (phospho Ser272) Rabbit Polyclonal Antibody
Catalog #: APRab04192

Summary

Production Name	5-LO (phospho Ser272) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,IHC,WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ALOX5
Alternative Names	ALOX5; LOG5; Arachidonate 5-lipoxygenase; 5-LO; 5-lipoxygenase
Gene ID	240.0 P09917.The antiserum was produced against synthesized peptide derived from human
SwissProt ID	Arachidonate 5 Lipoxygenase around the phosphorylation site of Ser271. AA range:246-295

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
Molecular Weight	78kD

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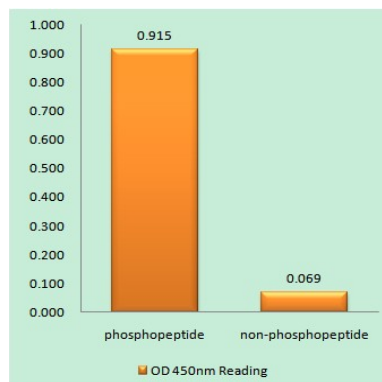
Background

This gene encodes a member of the lipoxygenase gene family and plays a dual role in the synthesis of leukotrienes from arachidonic acid. The encoded protein, which is expressed specifically in bone marrow-derived cells, catalyzes the conversion of arachidonic acid to 5(S)-hydroperoxy-6-trans-8,11,14-cis-eicosatetraenoic acid, and further to the allylic epoxide 5(S)-trans-7,9-trans-11,14-cis-eicosatetraenoic acid (leukotriene A4). Leukotrienes are important mediators of a number of inflammatory and allergic conditions. Mutations in the promoter region of this gene lead to a diminished response to antileukotriene drugs used in the treatment of asthma and may also be associated with atherosclerosis and several cancers. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012],catalytic activity:Arachidonate + O(2) = leukotriene A(4) + H(2)O.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 2 calcium ions per subunit.,function:Catalyzes the first step in leukotriene biosynthesis, and thereby plays a role in inflammatory processes.,pathway:Lipid metabolism; leukotriene A4 biosynthesis.,PTM:Serine phosphorylation by MAPKAPK2 is stimulated by arachidonic acid. Phosphorylation on Ser-523 by PKA has an inhibitory effect. Phosphorylation on Ser-272 prevents export from the nucleus.,similarity:Belongs to the lipoxygenase family.,similarity:Contains 1 lipoxygenase domain.,similarity:Contains 1 PLAT domain.,subcellular location:Shuttles between cytoplasm and nucleus. Found exclusively in the nucleus, when phosphorylated on Ser-272. Calcium binding promotes translocation from the cytosol and the nuclear matrix to the nuclear envelope and membrane association.,subunit:Interacts with ALOX5AP and LTC4S.,

Research Area

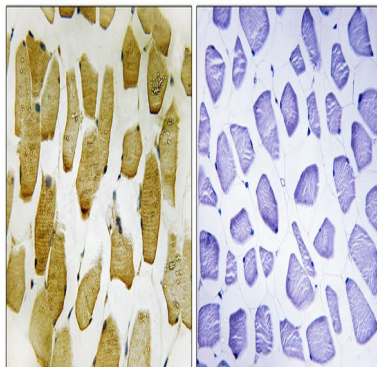
Arachidonic acid metabolism;

Image Data

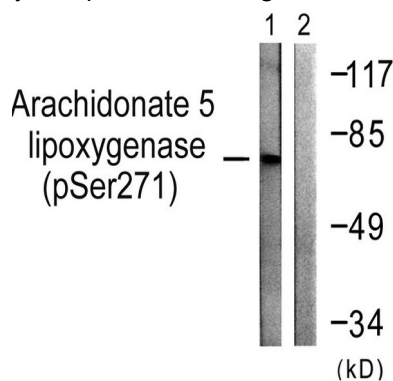


Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Arachidonate 5 Lipoxygenase (Phospho-Ser271) Antibody

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Immunohistochemistry analysis of paraffin-embedded human skeletal muscle, using Arachidonate 5 Lipoxygenase (Phospho-Ser271) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HUVEC cells, using Arachidonate 5 Lipoxygenase (Phospho-Ser271) Antibody. The lane on the right is blocked with the phospho peptide.

Note

For research use only.