

Rabbit anti-Human, Rat ALOX5 Polyclonal Antibody | anti-ALOX5 antibody

Phospho-ALOX5(Ser523) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320746	Rabbit	Human, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

ALOX5; Polyclonal Antibody; Phospho-ALOX5(Ser523) Antibody; 5 LO; 5 LOX; 5-lipoxygenase; 5-LO; 5-LOX; 5LOX; 5LPG; ALOX 5; Alox5; Arachidonate 5 lipoxygenase; Arachidonate 5-lipoxygenase; arachidonic 5-lipoxygenase alpha-10 isoform; arachidonic 5-lipoxygenase delta-10-13 isoform; arachidonic 5-lipoxygenase delta-13 isoform; arachidonic 5-lipoxygenase delta-p10 isoform; Arachidonic acid 5 lipoxygenase; Leukotriene A4 synthase; LOG 5; LOG5; LOX5_HUMAN; MGC163204; anti-ALOX5 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-ALOX5(Ser523) antibody detects endogenous levels of ALOX5 only when phosphorylated at Sersine 523
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	674
Applicable Applications for anti-ALOX5 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ALOX5 around the phosphorylation site of Sersine 523
Subcellular Location	Cytoplasm. Nucleus Matrix. Nucleus Membrane. 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.
Conjugation	Unconjugated
Epitope	Phospho Ser523
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA320746 staining HuvEc by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis on HuvEc cell lysate using Phospho-ALOX5(Ser523) Antibody, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ALOX5 antibody	Description: 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-eicosatetrenoic 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 have been observed, but their full-length nature has not been determined. Function: Catalyzes the first step in leukotriene biosynthesis, and thereby plays a role in inflammatory processes. Subunit Structure: Interacts with ALOX5AP and LTC4S. Interacts with COTL1, the interaction is required for stability and efficient catalytic activity. Post-translational Modifications: 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502057
NCBI GeneID	240
NCBI Accession #	NP_000689.1
NCBI GenBank Nucleotide #	NM_000698.4
UniProt Accession #	P09917; Q5JQ14; B7ZLS0; E5FPY5; E5FPY7; E5FPY8
Molecular Weight	Observed: 77 kDa Predicted: 78 kDa
NCBI Official Full Name	arachidonate 5-lipoxygenase isoform 1
NCBI Official Synonym Full Names	arachidonate 5-lipoxygenase
NCBI Official Symbol	ALOX5
NCBI Official Synonym Symbols	5-LO; 5LPG; LOG5; 5-LOX
NCBI Protein Information	arachidonate 5-lipoxygenase
UniProt Protein Name	Arachidonate 5-lipoxygenase
UniProt Gene Name	ALOX5
UniProt Synonym Gene Names	LOG5; 5-LO; 5-lipoxygenase

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

