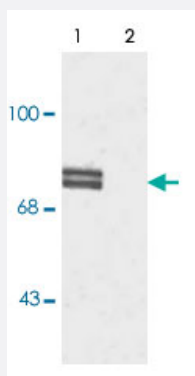


ALOX5 (phospho S523) polyclonal antibody

Catalog # PAB9606

Size 100 uL

Applications



Western Blot (Tissue lysate)

Western blot of rat cortex lysate showing specific immunolabeling of the ~80k doublet of ALOX5 phosphorylated at Ser523 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase: lambda-Ptase). The blot is identical to the control except that it was incubated in lambda-Ptase (1200 units for 30 min) before being exposed to the ALOX5 (phospho S523) polyclonal antibody (Cat # PAB9606). The immunolabeling is completely eliminated by treatment with lambda-Ptase.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of ALOX5.
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding S523 of human ALOX5.
Host	Rabbit
Theoretical MW (kDa)	80
Reactivity	Human, Primates, Rat
Form	Liquid
Purification	Affinity purification
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	Western Blot (1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 10 mM HEPES, 150 mM NaCl, pH 7.5 (50% glycerol, 10% BSA)

Storage Instruction

Store at -20°C.
Aliquot to avoid repeated freezing and thawing.

Applications

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Gene Info — ALOX5

Entrez GeneID [240](#)

Protein Accession# [P09917](#)

Gene Name ALOX5

Gene Alias 5-LO, 5-LOX, 5LPG, LOG5, MGC163204

Gene Description arachidonate 5-lipoxygenase

Omim ID [152390 600807](#)

Gene Ontology [Hyperlink](#)

Gene Summary 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 have been observed, but their full-length nature has not been determined. [provided by RefSeq]

Other Designations OTTHUMP00000019502|arachidonic acid 5-lipoxygenase|leukotriene A4 synthase

Publication Reference

- [Protein kinase A inhibits leukotriene synthesis by phosphorylation of 5-lipoxygenase on serine 523.](#)

Luo M, Jones SM, Phare SM, Coffey MJ, Peters-Golden M, Brock TG.

The Journal of Biological Chemistry 2004 Oct; 279(40):41512.

- [Arachidonate 5-lipoxygenase promoter genotype, dietary arachidonic acid, and atherosclerosis.](#)

Dwyer JH, Allayee H, Dwyer KM, Fan J, Wu H, Mar R, Lusi AJ, Mehrabian M.

The New England Journal of Medicine 2004 Jan; 350(1):29.

- [Prostaglandins and leukotrienes: advances in eicosanoid biology.](#)

Funk CD.

Science 2001 Nov; 294(5548):1871.

Application: WB, Human, Macrophages, Mast cells, Polymorphonuclear leukocytes

Pathway

- [Arachidonic acid metabolism](#)
- [Linoleic acid metabolism](#)
- [Metabolic pathways](#)

Disease

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Adenoma](#)
- [Adenomatous Polyps](#)
- [Alzheimer disease](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Birth Weight](#)
- [Bronchial Hyperreactivity](#)

- [Bronchiolitis](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery Diseases](#)
- [Carotid Stenosis](#)
- [Cerebral Hemorrhage](#)
- [Cerebrovascular Accident](#)
- [Chronic Disease](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Coronary Artery Disease](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Drug Hypersensitivity](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hyperhomocysteinemia](#)
- [Hyperlipidemias](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [Infant](#)

- [Inflammation](#)
- [Intracranial Hemorrhages](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Metabolic Syndrome X](#)
- [Multiple Sclerosis](#)
- [Myocardial Infarction](#)
- [Narcolepsy](#)
- [Neoplasms](#)
- [Osteoporosis](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Respiratory Syncytial Virus Infections](#)
- [Rhinitis](#)
- [Sinusitis](#)
- [Stroke](#)
- [Subarachnoid Hemorrhage](#)
- [Tuberculosis](#)
- [Urinary Bladder Neoplasms](#)
- [Urticaria](#)
- [Werner syndrome](#)