



ALOX5 (Phospho Ser663) Rabbit pAb

Catalog No	YP-Ab-17169
Isotype	IgG
Reactivity	Human, Mouse,Rat
Applications	IHC,WB
Gene Name	ALOX5 LOG5
Protein Name	Arachidonate 5-lipoxygenase (5-LO) (5-lipoxygenase) (EC 1.13.11.34)
Immunogen	Synthesized peptide derived from human ALOX5 (Phospho Ser663)
Specificity	This antibody detects endogenous levels of ALOX5 (Phospho Ser663) Rabbit pAb at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Rabbit,polyclonal
Purification	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Dilution	WB 1:500-2000 IHC 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Arachidonate 5-lipoxygenase (5-LO) (5-lipoxygenase) (EC 1.13.11.34)
Observed Band	78kD
Cell Pathway	Cytoplasm . Nucleus matrix . Nucleus membrane ; Peripheral membrane protein . Cytoplasm, perinuclear region . Cytoplasm, cytosol . Nucleus envelope . Nucleus intermembrane space . Shuttles between cytoplasm and nucleus (PubMed:19233132). Found exclusively in the nucleus, when phosphorylated on Ser-272 (PubMed:18978352). Calcium binding promotes translocation from the cytosol and the nuclear matrix to the nuclear envelope and membrane association (PubMed:19233132, PubMed:3118366, PubMed:8245774, PubMed:16275640). .
Tissue Specificity	
Function	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.,subun

Background

arachidonate 5-lipoxygenase(ALOX5) Homo sapiens 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],

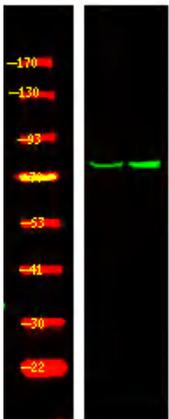
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of mouse brain ,using primary antibody at 1:1000 dilution. Secondary antibody(catalog#:RS23920) was diluted at 1:10000