

5-LO (Phospho Ser272) Rabbit pAb

CatalogNo: YP0715

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 78kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

ELISA 1:10000

IF 1:50-200

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human Arachidonate 5 Lipoxygenase around the phosphorylation site of Ser271. AA range: 246-295

Specificity Phospho-5-LO (S272) Polyclonal Antibody detects endogenous levels of 5-LO protein only when phosphorylated at S272. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):QLSLE

| Target Information

Gene name ALOX5

Protein Name Arachidonate 5-lipoxygenase

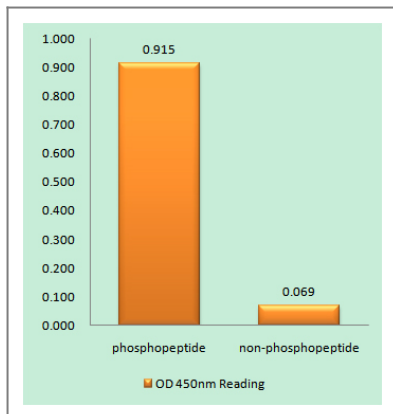
Organism	Gene ID	UniProt ID
Human	240 ;	P09917 ;
Mouse	11689 ;	P48999 ;
Rat	25290 ;	P12527 ;

Cellular Localization 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). .

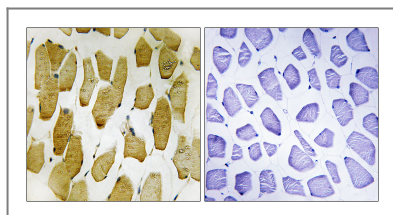
Tissue specificity Brain,Spleen,

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.,subunit:Interacts with ALOX5AP and LTC4S.,

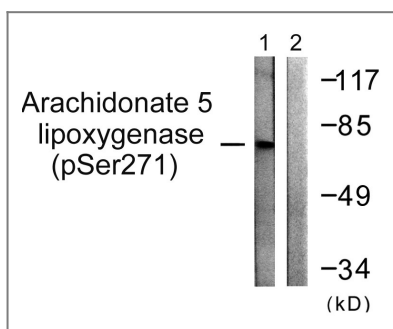
| Validation Data



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



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.

Contact information

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Please scan the QR code to access additional product information:
5-LO (Phospho Ser272) Rabbit pAb

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