

## 5-LO (Phospho Ser523) Rabbit pAb

CatalogNo: YP0491

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human,Rat

#### Applications

- WB,ELISA

#### MW

- 77kD (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**

**ELISA 1:10000**

**Not yet tested in other applications.**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** Synthesized phospho-peptide around the phosphorylation site of human 5-LO (phospho Ser523)

**Specificity** Phospho-5-LO (S523) Polyclonal Antibody detects endogenous levels of 5-LO protein only when phosphorylated at S523. 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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):KSsGF

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## | Target Information

**Gene name** ALOX5

**Protein Name** Arachidonate 5-lipoxygenase

Organism	Gene ID	UniProt ID
Human	<a href="#">240</a> ;	<a href="#">P09917</a> ;
Mouse		<a href="#">P48999</a> ;
Rat	<a href="#">25290</a> ;	<a href="#">P12527</a> ;

**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. ,

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## | Validation Data

## | Contact information

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Please scan the QR code to access additional product information:  
**5-LO (Phospho Ser523) Rabbit pAb**

