**Product Datasheet**

# ALOX5 antibody

Catalog No: #38389

Package Size: #38389-1 50ul #38389-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

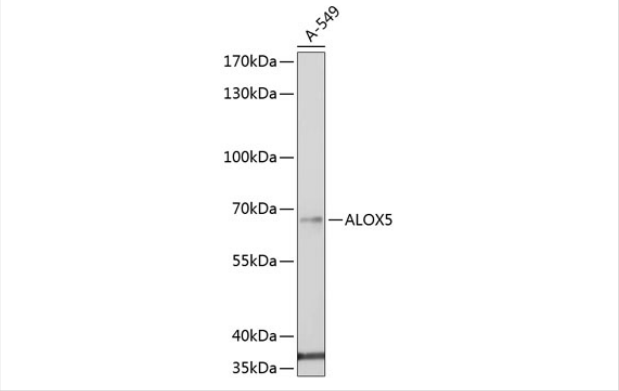
## Description

| | |
|---|---|
| Product Name | ALOX5 antibody |
| Host Species | Rabbit |
| Clonality | Polyclonal |
| Purification | Antibodies were purified by affinity purification using immunogen. |
| Applications | WB,IHC,IF |
| Species Reactivity | Human,Mouse,Rat |
| Specificity | The antibody detects endogenous level of total ALOX5 protein. |
| Immunogen Type | Recombinant Protein |
| Immunogen Description | Recombinant protein of human ALOX5. |
| Target Name | ALOX5 |
| Other Names | 5-LO; 5-LOX; 5LPG; LOG5; MGC163204 |
| Accession No. | Swiss-Prot#: P09917NCBI Gene ID: 240 |
| Uniprot | P09917 |
| GeneID | 240; |
| SDS-PAGE MW | 78kd |
| Concentration | 1.0mg/ml |
| Formulation | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at -20°C |

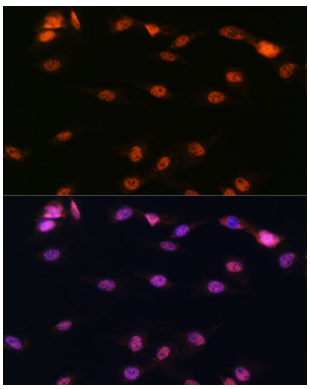
## Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200

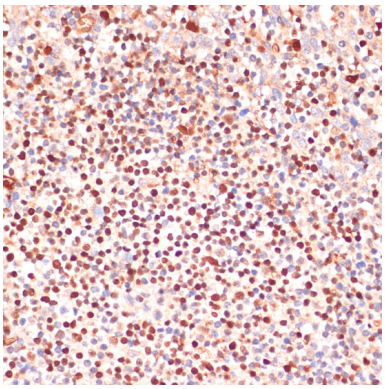
## Images




Western blot analysis of extracts of A-549 cells, using ALOX5 at 1:1000 dilution.



Immunofluorescence analysis of C6 cells using ALOX5 at dilution of 1:100. Blue: DAPI for nuclear staining.



Immunohistochemistry of paraffin-embedded human tonsil using ALOX5 at dilution of 1:100 (40x lens).

## Background

5-Lipoxygenase (5-LO, ALOX5) is an important catalytic enzyme responsible for the biosynthesis of leukotriene LTA4 from arachidonic acid (1,2). Leukotriene synthesis also requires 5-lipoxygenase-activating protein (FLAP, ALOX5AP), a nuclear membrane-bound protein that binds arachidonic acid and is thought to activate 5-LO. A number of related leukotrienes (i.e. B4, C4, D4) are derived from LTA4 and together these lipid mediators function in immune reaction regulation. 5-LO is primarily expressed in polymorphonuclear leukocytes, peripheral blood monocytes, macrophages, and mast cells (1,3). Overexpression of 5-LO protein is seen in certain cancer cells and is associated with poor diagnosis (1,4). Depending upon the cell type, 5-LO is localized to either the cytosol or the nucleus of quiescent cells (5). Following stimulation, 5-LO translocates to the nucleus and associates with FLAP to catalyze LTA4 synthesis (2,3). Phosphorylation of specific residues can regulate 5-LO enzymatic activity. Phosphorylation of 5-LO at Ser523 by PKA family kinases inhibits oxygenase activity (6,7) while MAPKAP2 and ERK family kinase phosphorylation at Ser271 and Ser663 stimulates 5-LO enzymatic activity in vivo (8,9).

Note: This product is for in vitro research use only