

**Anti-12 Lipoxygenase Antibody**  
**Catalog # ABO10804****Specification**

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**Anti-12 Lipoxygenase Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P0CG47</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Arachidonate 12-lipoxygenase, 12S-type(ALOX12) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-12 Lipoxygenase Antibody - Additional Information**

**Gene ID** 7314

**Other Names**

Polyubiquitin-B, Ubiquitin, UBB

**Calculated MW**

25762 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Ubiquitin: Cytoplasm . Nucleus .

**Tissue Specificity**

Expressed in vascular smooth muscle cells.

**Protein Name**

Arachidonate 12-lipoxygenase, 12S-type(12S-LOX/12S-lipoxygenase)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human ALOX12(609-628aa HHKEKYFSGPKPKAVLNQFR), different from the related rat sequence by four amino acids, and from the related mouse sequence by five amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the lipoxygenase family.

**Anti-12 Lipoxygenase Antibody - Protein Information****Name** UBB**Function**

[Ubiquitin]: Exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in proteotoxic stress response and cell cycle; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling.

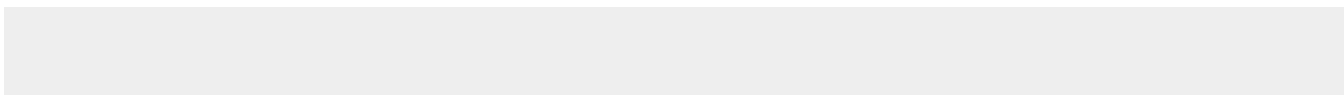
**Cellular Location**

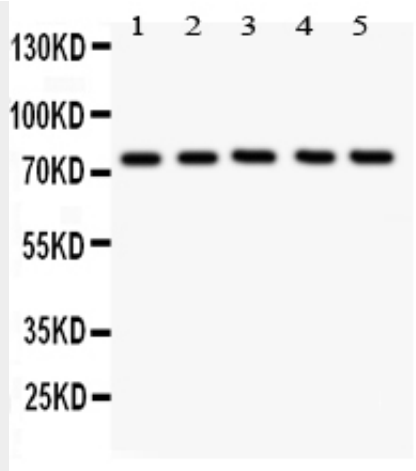
[Ubiquitin]: Cytoplasm. Nucleus. Mitochondrion outer membrane; Peripheral membrane protein

**Anti-12 Lipoxygenase Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-12 Lipoxygenase Antibody - Images**



Anti- 12 Lipxygenase antibody, ABO10804, Western blotting All lanes: Anti ANOX12 (ABO10804) at 0.5ug/ml  
Lane 1: A549 Whole Cell Lysate at 40ug  
Lane 2: MCF-7 Whole Cell Lysate at 40ug  
Lane 3: COLO320 Whole Cell Lysate at 40ug  
Lane 4: JURKAT Whole Cell Lysate at 40ug  
Lane 5: HELA Whole Cell Lysate at 40ug  
Predicted bind size: 75KD  
Observed bind size: 75KD

### Anti-12 Lipxygenase Antibody - Background

ALOX12, Arachidonate 12-lipoxygenase, is an enzyme that in humans is encoded by the ALOX12 gene. By fluorescence in situ hybridization, the ALOX12 gene is located in band 17p13.1. The gene consists of 14 exons with 13 introns and spans approximately 15 kb of DNA. Arachidonate 12-lipoxygenase introduces a molecular oxygen into the C-12 position of arachidonic acid to produce 12(S)-hydroperoxy-5,8,10,14-eicosatetraenoic acid. The major pathway of arachidonic acid metabolism in human platelets proceeds via a 12-lipoxygenase enzyme. Expression of the LOG12 gene was detected in human erythroleukemia cells, platelets, and human umbilical vein endothelial cells by reverse transcription-PCR analysis.