

**Anti-LOX12 Rabbit Monoclonal Antibody**  
Catalog # ABO15852**Specification****Anti-LOX12 Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P18054</a>
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-LOX12 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Rat.

**Anti-LOX12 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 239

**Other Names**

Polyunsaturated fatty acid lipoxygenase ALOX12, 1.13.11.-, Arachidonate (12S)-lipoxygenase, 12S-LOX, 12S-lipoxygenase, 1.13.11.31, Arachidonate (15S)-lipoxygenase, 1.13.11.33, Linoleate (13S)-lipoxygenase, Lipoxin synthase 12-LO, 3.3.2.-, Platelet-type lipoxygenase 12, ALOX12 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=429](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=429))>HGNC:429</a>), 12LO, LOG12

**Calculated MW**

75 kDa KDa

**Application Details**

WB 1:500-1:2000

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human LOX12

**Purification**

Affinity-chromatography

Storage

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-LOX12 Rabbit Monoclonal Antibody - Protein Information**

Name ALOX12 ([HGNC:429](#))

Synonyms 12LO, LOG12

### Function

Catalyzes the regio and stereo-specific incorporation of molecular oxygen into free and esterified polyunsaturated fatty acids generating lipid hydroperoxides that can be further reduced to the corresponding hydroxy species (PubMed:[17493578](http://www.uniprot.org/citations/17493578), PubMed:[18311922](http://www.uniprot.org/citations/18311922), PubMed:[1851637](http://www.uniprot.org/citations/1851637), PubMed:[32404334](http://www.uniprot.org/citations/32404334), PubMed:[8319693](http://www.uniprot.org/citations/8319693), PubMed:[8500694](http://www.uniprot.org/citations/8500694)). Mainly converts arachidonate ((5Z,8Z,11Z,14Z)-eicosatetraenoate) to the specific bioactive lipid (12S)-hydroperoxyeicosatetraenoate/(12S)-HPETE (PubMed:[17493578](http://www.uniprot.org/citations/17493578), PubMed:[22984144](http://www.uniprot.org/citations/22984144), PubMed:[24282679](http://www.uniprot.org/citations/24282679), PubMed:[8319693](http://www.uniprot.org/citations/8319693), PubMed:[8500694](http://www.uniprot.org/citations/8500694)). Through the production of bioactive lipids like (12S)- HPETE it regulates different biological processes including platelet activation (PubMed:[8319693](http://www.uniprot.org/citations/8319693), PubMed:[8500694](http://www.uniprot.org/citations/8500694)). It can also catalyze the epoxidation of double bonds of polyunsaturated fatty acids such as (14S)-hydroperoxy-docosahexaenoate/(14S)-HPDHA resulting in the formation of (13S,14S)-epoxy-DHA (PubMed:[23504711](http://www.uniprot.org/citations/23504711)). Furthermore, it may participate in the sequential oxidations of DHA ((4Z,7Z,10Z,13Z,16Z,19Z)-docosahexaenoate) to generate specialized pro- resolving mediators (SPMs) like resolvin D5 ((7S,17S)-diHPDHA) and (7S,14S)-diHPDHA, that actively down-regulate the immune response and have anti-aggregation properties with platelets (PubMed:[32404334](http://www.uniprot.org/citations/32404334)). An additional function involves a multistep process by which it transforms leukotriene A4/LTA4 into the bioactive lipids lipoxin A4/LXA4 and lipoxin B4/LXB4, both are vasoactive and LXA4 may regulate neutrophil function via occupancy of specific recognition sites (PubMed:[8250832](http://www.uniprot.org/citations/8250832)). Can also peroxidize linoleate ((9Z,12Z)-octadecadienoate) to (13S)- hydroperoxyoctadecadienoate/ (13S-HPODE) (By similarity). Due to its role in regulating both the expression of the vascular endothelial growth factor (VEGF, an angiogenic factor involved in the survival and metastasis of solid tumors) and the expression of integrin beta-1 (known to affect tumor cell migration and proliferation), it can be regarded as protumorigenic (PubMed:[16638750](http://www.uniprot.org/citations/16638750), PubMed:[22237009](http://www.uniprot.org/citations/22237009), PubMed:[9751607](http://www.uniprot.org/citations/9751607)). Important for cell survival, as it may play a role not only in proliferation but also in the prevention of apoptosis in vascular smooth muscle cells (PubMed:[23578768](http://www.uniprot.org/citations/23578768)).

### Cellular Location

Cytoplasm, cytosol. Membrane. Note=Membrane association is stimulated by EGF

### Tissue Location

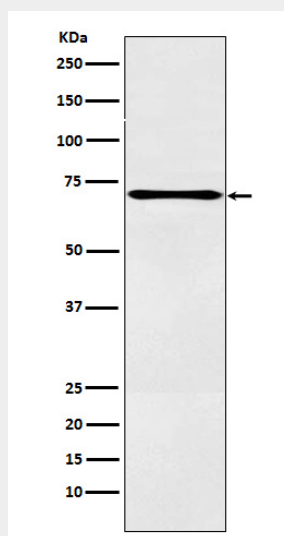
Expressed in vascular smooth muscle cells.

## Anti-LOX12 Rabbit Monoclonal 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-LOX12 Rabbit Monoclonal Antibody - Images



Western blot analysis of LOX12 expression in A431 cell lysate.