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ALOX15 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7896B

Specification

ALOX15 Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	P16050
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**74804**
Antigen Region	**610-643**

ALOX15 Antibody (C-term) - Additional Information

Gene ID 246

Other Names
Arachidonate 15-lipoxygenase, 15-LOX, 15-LOX-1, 12/15-lipoxygenase, Arachidonate 12-lipoxygenase, leukocyte-type, 12-LOX, Arachidonate omega-6 lipoxygenase, ALOX15, LOG15

Target/Specificity
This ALOX15 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 610-643 amino acids from the C-terminal region of human ALOX15.

Dilution
IF~~1:10~50
WB~~1:2000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ALOX15 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ALOX15 Antibody (C-term) - Protein Information

Name ALOX15 (HGNC:433)

Synonyms LOG15

Function Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids generating a spectrum of bioactive lipid mediators (PubMed:17052953, PubMed:1944593, PubMed:24282679, PubMed:25293588, PubMed:32404334, PubMed:8334154). It inserts peroxyl groups at C12 or C15 of arachidonate ((5Z,8Z,11Z,14Z)-eicosatetraenoate) producing both 12-hydroperoxyeicosatetraenoate/12-HPETE and 15- hydroperoxyeicosatetraenoate/15-HPETE (PubMed:17052953, PubMed:1944593, PubMed:24282679, PubMed:8334154). It may then act on 12-HPETE to produce hepoxilins, which may show pro-inflammatory properties (By similarity). Can also peroxidize linoleate ((9Z,12Z)-octadecadienoate) to 13-hydroperoxyoctadecadienoate/13-HPODE (PubMed:8334154). 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). Can convert epoxy fatty acids to hydroperoxy-epoxides derivatives followed by an intramolecular nucleophilic substitution leading to the formation of monocyclic endoperoxides (PubMed:25293588). Plays an important role during the maintenance of self-tolerance by peroxidizing membrane-bound phosphatidylethanolamine which can then signal the sorting process for clearance of apoptotic cells during inflammation and prevent an autoimmune response. In addition to its role in the immune and inflammatory responses, this enzyme may play a role in epithelial wound healing in the cornea through production of lipoxin A4 (LXA(4)) and docosahexaenoic acid-derived neuroprotectin D1 (NPD1; 10R,17S-HDHA), both lipid autacoids exhibit anti-inflammatory and neuroprotective properties. Furthermore, it may regulate actin polymerization which is crucial for several biological processes such as the phagocytosis of apoptotic cells. It is also implicated in the generation of endogenous ligands for peroxisome proliferator activated receptor (PPAR-gamma), hence modulating macrophage development and function. It may also exert a negative effect on skeletal development by regulating bone mass through this pathway. As well as participates in ER stress and downstream inflammation in adipocytes, pancreatic islets, and liver (By similarity). Finally, it is also involved in the cellular response to IL13/interleukin-13 (PubMed:21831839).

Cellular Location
Cytoplasm, cytosol. Cell membrane; Peripheral membrane protein. Lipid droplet. Note=Predominantly cytosolic; becomes enriched at membranes upon calcium binding (By similarity) Translocates from the cytosol to the plasma membrane when stimulated by IL13/interleukin-13 and in macrophages binding apoptotic cells (By similarity). {ECO:0000250|UniProtKB:P39654}

Tissue Location
Detected in monocytes and eosinophils (at protein level). Expressed in airway epithelial cells

ALOX15 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ALOX15 Antibody (C-term) - Images

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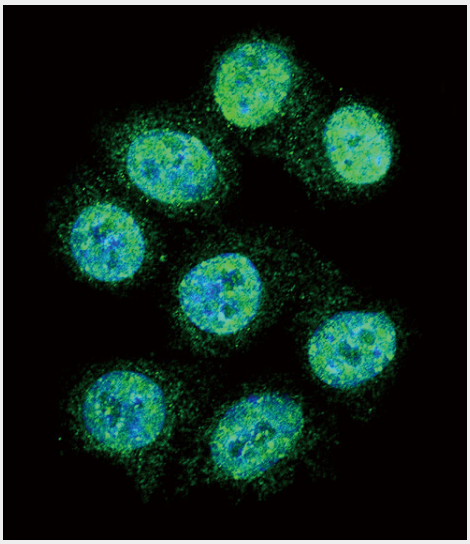
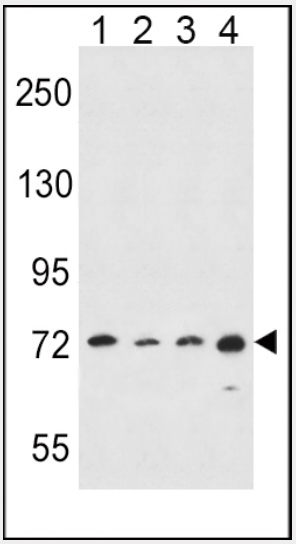


Confocal immunofluorescent analysis of ALOX15 Antibody (C-term)(Cat#AP7896b) with hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



ALOX15 Antibody (C-term) (Cat.#AP7896b) western blot analysis in Hela(lane 1),A549(lane 2),K562(lane 3),MDA-MB435(lane 4) cell line lysates (35ug/lane).This demonstrates the ALOX15 antibody detected the ALOX15 protein (arrow).

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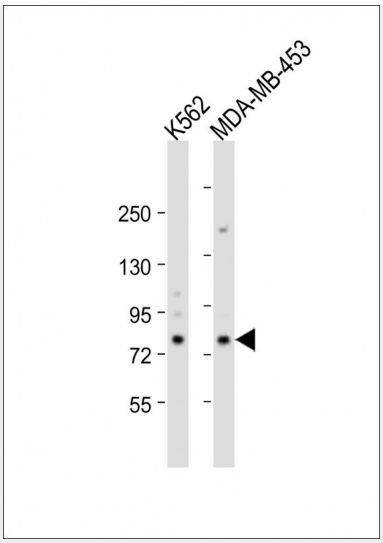
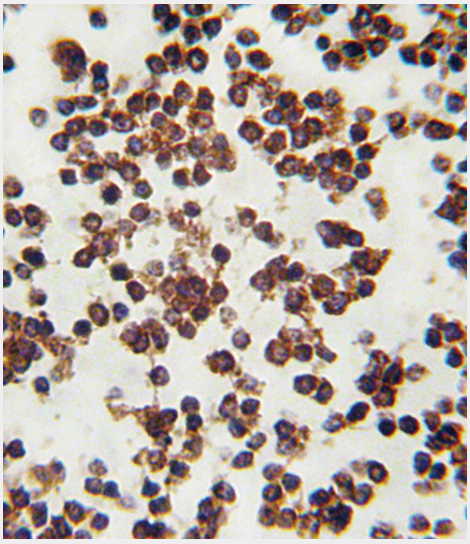


All lanes : Anti-ALOX15 Antibody (C-term) at 1:2000 dilution Lane 1: K562 whole cell lysate Lane 2: MDA-MB-453 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lymph tissue reacted with ALOX15 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ALOX15 Antibody (C-term) - Background

ALOX15 converts arachidonic acid to 15S-hydroperoxyeicosatetraenoic acid. The protein also acts on C-12 of arachidonate as well as on linoleic acid.

ALOX15 Antibody (C-term) - References

Tang,Y., Int. J. Cancer 124 (7), 1545-1551 (2009)
Bevan,S., Stroke 40 (3), 696-701 (2009)
Zuo,X., J. Biol. Chem. 283 (46), 31341-31347 (2008)