

ALOX15B Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9200b

Specification

ALOX15B Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [O15296](#)

ALOX15B Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 247

Other Names

Arachidonate 15-lipoxygenase B, 15-LOX-B, 15-lipoxygenase 2, 15-LOX-2, Arachidonate 15-lipoxygenase type II, Linoleate 13-lipoxygenase 15-LOb, 11311-, ALOX15B

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9200b](/products/AP9200b) was selected from the C-term region of human ALOX15B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ALOX15B Antibody (C-term) Blocking Peptide - Protein Information

Name ALOX15B ([HGNC:434](#))

Function

[Isoform A]: Non-heme iron-containing dioxygenase that catalyzes the stereo-specific peroxidation of free and esterified polyunsaturated fatty acids (PUFAs) generating a spectrum of bioactive lipid mediators (Probable) (PubMed: [10542053](http://www.uniprot.org/citations/10542053), PubMed: [10625675](http://www.uniprot.org/citations/10625675), PubMed: [12704195](http://www.uniprot.org/citations/12704195), PubMed: [17493578](http://www.uniprot.org/citations/17493578), PubMed: [18311922](http://www.uniprot.org/citations/18311922), PubMed: [24282679](http://www.uniprot.org/citations/24282679), PubMed: [24497644](http://www.uniprot.org/citations/24497644), PubMed: [32404334](http://www.uniprot.org/citations/32404334), PubMed: [9177185](http://www.uniprot.org/citations/9177185))

target="_blank">9177185). It inserts peroxy groups at C15 of arachidonate ((5Z,8Z,11Z,14Z)-eicosatetraenoate) producing (15S)-hydroperoxyeicosatetraenoate/(15S)-HPETE (Probable) (PubMed:10625675, PubMed:11956198, PubMed:12704195, PubMed:17493578, PubMed:24282679, PubMed:24497644, PubMed:9177185). Also peroxidizes linoleate ((9Z,12Z)-octadecadienoate) to 13-hydroperoxyoctadecadienoate/13-HPODE (Probable) (PubMed:10542053, PubMed:27435673). Oxygenates arachidonyl derivatives such as 2- arachidonoylglycerol (2-AG) leading to the production and extracellular release of 15-hydroxyeicosatetraenoyl glycerol (15-HETE-G) that acts as a peroxisome proliferator-activated receptor alpha agonist (PubMed:11956198, PubMed:17493578, PubMed:18311922). Has the ability to efficiently class-switch ALOX5 pro-inflammatory mediators into anti- inflammatory intermediates (PubMed:27145229). Participates in the sequential oxidations of DHA ((4Z,7Z,10Z,13Z,16Z,19Z)-docosahexaenoate) to generate specialized pro-resolving mediators (SPMs) resolvin D5 ((7S,17S)-diHPDHA), which can actively down-regulate the immune response and have anti-aggregation properties with platelets (PubMed:32404334). In addition to free PUFAs hydrolyzed from phospholipids, it directly oxidizes PUFAs esterified to membrane-bound phospholipids (PubMed:27435673). Has no detectable 8S-lipoxygenase activity on arachidonate but reacts with (8S)-HPETE to produce (8S,15S)-diHPETE (Probable). May regulate progression through the cell cycle and cell proliferation (PubMed:11839751, PubMed:12704195). May also regulate cytokine secretion by macrophages and therefore play a role in the immune response (PubMed:18067895). May also regulate macrophage differentiation into proatherogenic foam cells (PubMed:22912809).

Cellular Location

[Isoform A]: Nucleus. Note=Other isoforms are excluded from the nucleus.

Tissue Location

Expressed in hair, prostate, lung, ovary, lymph node, spinal cord and cornea.

ALOX15B Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ALOX15B Antibody (C-term) Blocking Peptide - Images

ALOX15B Antibody (C-term) Blocking Peptide - Background

ALOX15B encodes a member of the lipoxygenase family of structurally related nonheme iron dioxygenases involved in the production of fatty acid hydroperoxides. The encoded protein converts arachidonic acid exclusively to 15S-hydroperoxyeicosatetraenoic acid, while metabolizing linoleic

acid less effectively. This gene is located in a cluster of related genes and a pseudogene that spans approximately 100 kilobases on the short arm of chromosome 17.

ALOX15B Antibody (C-term) Blocking Peptide - References

Wecksler,A.T., et.al., *Biochemistry* 48 (36), 8721-8730 (2009)Kawakami,Y., et.al, *Biosci. Biotechnol. Biochem.* 73 (8), 1811-1817 (2009)