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ALOX15B Rabbit pAb

Catalog # AP99021

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O15296
Other Accession	O15296
Reactivity	Rat, Human, Mouse
Predicted	Pig, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	75857
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ALOX15B/15 Lipoxygenase 2
Epitope Specificity	13-110/676
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the lipoxygenase family. Contains 1 lipoxygenase domain. Contains 1 PLAT domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Converts arachidonic acid exclusively to 15S-hydroperoxyeicosatetraenoic acid, while linoleic acid is less well metabolized. Tissue specificity: Expressed in hair, prostate, lung and cornea.

Additional Information

Gene ID	247
Other Names	15-LOX-2; 15-LOX-B; 8-LOX; 8S-LOX; Alox15b; LX15B_HUMAN; 15-lipoxygenase 2 (15-LOX-2); Arachidonate 15-lipoxygenase B (15-LOX-B); Arachidonate 15-lipoxygenase type II; Linoleate 13-lipoxygenase 15-LOb; ALOX8_MOUSE; Alox8; Arachidonate 8S-lipoxygenase (8-LOX | 8S-LOX); Linoleate 9S-lipoxygenase ALOX8; Q5NCF6_MOUSE; Q5NCF7_MOUSE; LX15B_RAT; arachidonate 15-lipoxygenase type B; arachidonate 15-lipoxygenase, second type
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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, PubMed:10625675, PubMed:12704195, PubMed:17493578, PubMed:18311922, PubMed:24282679, PubMed:24497644, PubMed:32404334, PubMed:9177185). It inserts peroxyl 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.