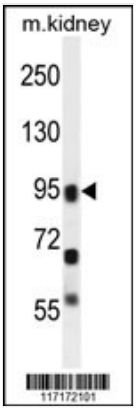
ALOXE3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ALOXE3, Polyclonal Antibody
Full Product Name	ALOXE3 Antibody (Center)
Product Gene Name	anti-ALOXE3 antibody
Product Synonym Names	Hydroperoxide isomerase ALOXE3; Epidermis-type lipoxygenase 3; Epidermal LOX-3; e-LOX-3; eLOX-3; Hydroperoxy icosatetraenoate dehydratase; ALOXE3
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human, mouse
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 0.31 (lot specific)
Specificity	This ALOXE3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 223-252 amino acids from the Central region of human ALOXE3.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	ALOXE3 peptide (MBS9217594) is used for blocking the activity of ALOXE3 antibody (MBS9213076)
Molecular Weight	80543
Immunogen Sequence Positions	223-252
OMIM	606545
3D Structure	ModBase 3D Structure for Q9BYJ1
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-ALOXE3 antibody	Cell Biology; Metabolism; Signal transduction
Applications Tested/Suitable for anti-ALOXE3 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-ALOXE3 antibody	WB~~1:1000

Related Product Information for anti-ALOXE3 antibody	ALOXE3 is a member of the lipoxygenase family, which are catabolized by arachidonic acid-derived compounds. The encoded enzyme is a hydroperoxide isomerase that synthesizes a unique type of epoxy alcohol (8R-hydroxy-11R,12R-epoxyeicosa-5Z,9E,14Z-trienoic acid) from 12R-hydroperoxyeicosatetraenoic acid (12R-HPETE). This epoxy alcohol can activate the the nuclear receptor peroxisome proliferator-activated receptor alpha (PPARalpha), which is implicated in epidermal differentiation. Loss of function of the enzyme encoded by this gene results in ichthyosis, implicating the function of this gene in the differentiation of human skin.
Product References and Citations for anti-ALOXE3 antibody	Han, S., et al. Hum. Immunol. 71(7):727-730(2010) Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 19(5):1356-1361(2010) Vahlquist, A., et al. J. Invest. Dermatol. 130(2):438-443(2010) Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 18(5):1651-1658(2009) Yu, Z., et al. Lipids 42(6):491-497(2007)
Other Notes	Small volumes of anti-ALOXE3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ALOXE3 purchase	MBS9213076 is an antibody targeting ALOXE3. Also known as ALOXE3 Antibody (Center). Reactive in Human, mouse. Host: Rabbit.



Western Blot (WB) of anti-ALOXE3 antibody
ALOXE3 Antibody (Center) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the ALOXE3 antibody detected the ALOXE3 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ALOXE3. It may not necessarily be applicable to this product.

NCBI GI #	260166612
NCBI GeneID	59344
NCBI Accession #	NP_001159432.1
NCBI Related Accession #	NP_067641.2
UniProt Primary Accession #	Q9BYJ1
UniProt Secondary Accession #	Q3ZB74; Q9H4F2; Q9HC22; B2R981; B7Z3W0
UniProt Related Accession #	Q9BYJ1
GenBank Nucleotide #	NM_001165960.1
NCBI Official Full Name	hydroperoxide isomerase ALOXE3 isoform 1
NCBI Official Synonym Full Names	arachidonate lipoxygenase 3

NCBI Official Symbol	ALOXE3
NCBI Official Synonym Symbols	ARCI3; E-LOX; eLOX3; eLOX-3
UniProt Protein Name	Hydroperoxide isomerase ALOXE3
UniProt Synonym Protein Names	Epidermis-type lipoxygenase 3; Epidermal LOX-3; e-LOX-3; eLOX-3; Hydroperoxy icosatetraenoate dehydratase (EC:4.2.1.152)
Protein Family	Hydroperoxide isomerase
UniProt Gene Name	ALOXE3
UniProt Synonym Gene Names	Epidermal LOX-3; e-LOX-3; eLOX-3
UniProt Entry Name	LOXE3_HUMAN
NCBI Protein Information	hydroperoxide isomerase ALOXE3
NCBI Summary for ALOXE3	This gene is a member of the lipoxygenase family, which are catabolized by arachidonic acid-derived compounds. The encoded enzyme is a hydroperoxide isomerase that synthesizes a unique type of epoxy alcohol (8R-hydroxy-11R,12R-epoxyeicosa-5Z,9E,14Z-trienoic acid) from 12R-hydroperoxyeicosatetraenoic acid (12R-HPETE). This epoxy alcohol can activate the the nuclear receptor peroxisome proliferator-activated receptor alpha (PPARalpha), which is implicated in epidermal differentiation. Loss of function of the enzyme encoded by this gene results in ichthyosis, implicating the function of this gene in the differentiation of human skin. This gene is part of a cluster of lipoxygenase genes on 17p13.1. Mutations in this gene result in nonbullous congenital ichthyosiform erythroderma (NCIE). Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]
UniProt Comments for ALOXE3	ALOXE3: Introduces molecular oxygen into polyunsaturated fatty acids. Exact substrate is not known. Defects in ALOXE3 are a cause of non-bullous congenital ichthyosiform erythroderma (NCIE). NCIE is a non- bullous ichthyosis, a skin disorder characterized by abnormal cornification of the epidermis. Most affected individuals are born with a tight, shiny, translucent covering called collodion membrane. The collodion membrane subsequently evolves into generalized scaling and intense redness of the skin. Clinical features are milder than in lamellar ichthyoses and demonstrate a greater variability in the intensity of erythema, size and type of scales. In contrast to lamellar ichthyoses, scales are usually white, fine and powdery, and palms and soles are severely affected. Patients suffer from palmoplantar keratoderma, often with painful fissures, digital contractures, and loss of pulp volume. Belongs to the lipoxygenase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 4.2.1.152; EC 5.4.4.7; Oxidoreductase Chromosomal Location of Human Ortholog: 17p13.1 Cellular Component: cytoplasm Molecular Function: oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; hepoxilin A3 synthase activity; protein binding; iron ion binding; lyase activity Biological Process: fat cell differentiation; sphingolipid metabolic process; lipoxygenase pathway; ceramide biosynthetic process; arachidonic acid metabolic process; linoleic acid metabolic process; hepoxilin biosynthetic process; sensory perception of pain Disease: Ichthyosis, Congenital, Autosomal Recessive 3; Ichthyosis, Congenital, Autosomal Recessive 2
Research Articles on ALOXE3	**1.** Loss-of-function mutations in the LOX genes ALOX12B and ALOXE3 have been found to represent the second most common cause of autosomal recessive congenital ichthyosis. [review]
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