

产品名称: 5 Lipoxygenase (15E11) Rabbit Monoclonal Antibody
产品货号: AMRe06334



产品概述 (Summary)

产品名称 (Production Name)	5 Lipoxygenase (15E11) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,FC
种属反应性 (Reactivity)	Human,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	ALOX5
别名 (Alternative Names)	ALOX5; 5-LO; 5-LOX; 5LPG; LOG5; MGC163204; LOX5; 5-lipoxygenase ; 5 Lipoxygenase; 5 LOX; ALOX 5;
基因 ID (Gene ID)	240.0
蛋白 ID (SwissProt ID)	P09917.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:50-1:200,ICC/IF 1:100-1:200,FC 1:50-1:200
蛋白分子量 (Molecular Weight)	78kDa

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研究背景 (Background)

Catalyzes the first step in leukotriene biosynthesis, and thereby plays a role in inflammatory processes. Catalyzes the oxygenation of arachidonate ((5Z,8Z,11Z,14Z)- eicosatetraenoate) to 5-hydroperoxyeicosatetraenoate (5-HPETE) followed by the dehydration to 5,6- epoxyeicosatetraenoate (Leukotriene A4/LTA4), the first two steps in the biosynthesis of leukotrienes, which are potent mediators of inflammation (PubMed:8631361, PubMed:21233389, PubMed:22516296, PubMed:24282679, PubMed:19022417, PubMed:23246375, PubMed:8615788, PubMed:24893149, PubMed:31664810). Also catalyzes the oxygenation of arachidonate into 8- hydroperoxyicosatetraenoate (8-HPETE) and 12- hydroperoxyicosatetraenoate (12-HPETE) (PubMed:23246375). Displays lipoxin synthase activity being able to convert (15S)-HETE into a conjugate tetraene (PubMed:31664810). Although arachidonate is the preferred substrate, this enzyme can also metabolize oxidized fatty acids derived from arachidonate such as (15S)-HETE, eicosapentaenoate (EPA) such as (18R)- and (18S)-HEPE or docosahexaenoate (DHA) which lead to the formation of specialized pro-resolving mediators (SPM) lipoxin and resolvins E and D respectively, therefore it participates in anti-inflammatory responses (PubMed:21206090, PubMed:31664810, PubMed:8615788, PubMed:17114001, PubMed:32404334). Oxidation of DHA directly inhibits endothelial cell proliferation and sprouting angiogenesis via peroxisome proliferator-activated receptor gamma (PPARGgamma) (By similarity). It does not catalyze the oxygenation of linoleic acid and does not convert (5S)-HETE to lipoxin isomers (PubMed:31664810). In addition to inflammatory processes, it participates in dendritic cell migration, wound healing through an antioxidant mechanism based on heme oxygenase-1 (HO-1) regulation expression, monocyte adhesion to the endothelium via ITGAM expression on monocytes (By similarity). Moreover, it helps establish an adaptive humoral immunity by regulating primary resting B cells and follicular helper T cells and participates in the CD40-induced production of reactive oxygen species (ROS) after CD40 ligation in B cells through interaction with PIK3R1 that bridges ALOX5 with CD40 (PubMed:31664810).

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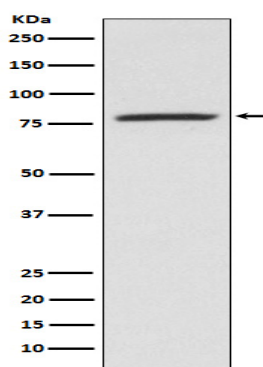


<http://www.uniprot.org/citations/21200133>). Also may play a role in glucose homeostasis, regulation of insulin secretion and palmitic acid-induced insulin resistance via AMPK (By similarity). Can regulate bone mineralization and fat cell differentiation increases in induced pluripotent stem cells (By similarity).

研究领域 (Research Area)

Signal Transduction; Metabolism; Energy Metabolism; Cardiovascular; Atherosclerosis; Lipoprotein metabolism; Cancer; Cancer Metabolism; Metabolic signaling pathway; Hormone biosynthesis; Pathways and Processes; Metabolic signaling pathways; Lipid and lipoprotein metabolism; Lipoprotein metabolism; Energy transfer pathways; Energy Metabolism; Endocrine metabolism; Hormone biosynthesis; Types of disease; Cancer; Heart disease

图片 (Image Data)



Western blot analysis of 5 Lipoxygenase expression in K562 cell lysate.

注意事项 (Note)

For research use only .