

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

产品货号: AMRe06334

产品概述 (Summary)

描述(Description)	Recombinant rabbit monoclonal antibody
宿主(Host)	Rabbit
应用(Application)	WB,IHC,ICC/IF,FC
种属反应(Reactivity)	Human,Rat
偶联物(Conjugation)	Unconjugated
修饰(Modification)	Unmodified
同种型(Isotype)	IgG
克隆(Clonality)	Monoclonal
剂型(Form)	Liquid
保存条件(Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative
储存溶液(Buffer)	N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
纯化 (Purification)	Affinity purification

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
分子量(Molecular Weight)	78kDa

抗原信息(Antigen Information)

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
SwissProt ID	P09917
免疫原(Immunogen)	A synthetic peptide of human 5 Lipoxygenase

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: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).

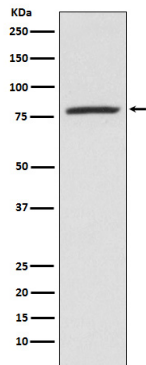
研究领域 (Research Area)

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

注意事项 (Note)

For research use only.

图片 (Image Data)



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

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产品类别	产品货号	产品名称
WB 解决方案	RA10020	2h 极速 WB 即用型全流程试剂盒
	RA10021	4h 快速 WB 即用型全流程试剂盒
	RA10042	5h 畅享版 WB 全流程试剂盒
	RA10037	校准级彩色预染蛋白 Marker (8-180kDa)
	RA10038	校准级彩色预染蛋白 Marker (10-250kDa)
	RA10039	校准级高分子彩色预染蛋白 Marker (25-400kDa)
TSA 多重荧光染色试剂盒	RA10008	TSA 双标三色多重荧光染色试剂盒 (mIHC)
	RA10009	TSA 三标四色多重荧光染色试剂盒 (mIHC)
	RA10010	TSA 四标五色多重荧光染色试剂盒 (mIHC)
	RA10011	TSA 五标六色多重荧光染色试剂盒 (mIHC)
	RA10012	TSA 六标七色多重荧光染色试剂盒 (mIHC)
IHC 检测试剂盒	RA10006	HRP Anti-Mouse/Rabbit IHC Detection System
	RA10007	Polymer-HRP Anti-Mouse/Rabbit IHC Detection System
抗体标记试剂盒	RE80004p	辣根过氧化物酶(HRP)抗体标记试剂盒
	RE80002q	Sulfo-NHS-生物素标记试剂盒
	RE80007p	Cy3 荧光素标记试剂盒
	RE80011p	Fluor488 荧光素标记试剂盒
	RE80017p	Fluor750 荧光素标记试剂盒
	RE80005p	藻红蛋白(R-PE) 抗体快速标记试剂盒
	RE80040	PE-Cy7 串联染料抗体快速标记试剂盒
稳转细胞系构建服务 (免费赠送全膜 WB 验证)	TS-0001	过表达稳转细胞系构建
	TS-0002	敲低稳转细胞系构建
	TS-0003	敲除细胞系构建

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