Datasheet for ABIN968117

anti-ALOX5 antibody (AA 442-590)

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Overview

Quantity:	150 µg
Target:	ALOX5
Binding Specificity:	AA 442-590
Reactivity:	Human, Rat, Mouse, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ALOX5 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human 5-Lipoxygenase aa. 442-590
Clone:	33-5
Isotype:	IgG1
Cross-Reactivity:	Chicken, Rat (Rattus), Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	ALOX5
Alternative Name:	5-Lipoxygenase (ALOX5 Products)
Background:	5-Lipoxygenase (5-LO) is the initial enzyme that converts arachidonic acid to leukotrienes, which are important inflammatory and vasoconstrictive metabolites. It is activated in response to a number of stimuli, such as differentiation and allergen challenges. The 5-LO gene, abundantly expressed in placenta, lung, and leukocytes, encodes a protein of 674 amino acids with an apparent molecular weight of 78kDa. 5-LO is a Ca2+ and ATP-dependent enzyme that translocates from the cytosol to either a nuclear or plasma membrane compartment following activation. A proline-rich domain of 5-LO (amino acids 566-577) has been identified as a binding site for the PTyr-binding protein, Grb2. This Grb2 site links tyrosine kinases with activation and redistribution of 5-LO. Furthermore, tyrosine kinase inhibitors increase the activity of 5-LO and block the enzyme's subcellular redistribution.
Molecular Weight:	79 kDa

Application Details

Comment:	Related Products: ABIN967389, ABIN968554
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

Hundley, Prasad, Beaven: "Elevated levels of cyclooxygenase-2 in antigen-stimulated mast cells is associated with minimal activation of p38 mitogen-activated protein kinase." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 167, Issue 3, pp. 1629-36, (2001) (PubMed).

Zaitsu, Hamasaki, Matsuo, Kukita, Tsuji, Miyazaki, Hayasaki, Muro, Yamamoto, Kobayashi, Ichimaru, Kohashi, Miyazaki: "New induction of leukotriene A(4) hydrolase by interleukin-4 and interleukin-13 in human polymorphonuclear leukocytes." in: **Blood**, Vol. 96, Issue 2, pp. 601-9, (2000) (PubMed).

Lepley, Muskardin, Fitzpatrick: "Tyrosine kinase activity modulates catalysis and translocation of cellular 5-lipoxygenase." in: **The Journal of biological chemistry**, Vol. 271, Issue 11, pp. 6179-84, (1996) (PubMed).

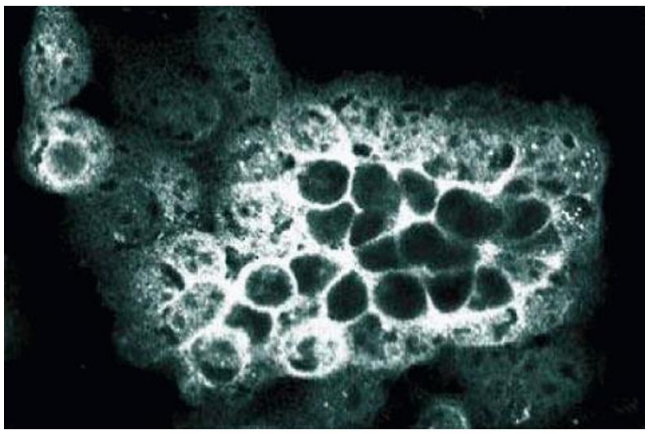
Lepley, Fitzpatrick: "5-Lipoxygenase contains a functional Src homology 3-binding motif that interacts with the Src homology 3 domain of Grb2 and cytoskeletal proteins." in: **The Journal of biological chemistry**, Vol. 269, Issue 39, pp. 24163-8, (1994) (PubMed).

Matsumoto, Funk, Rådmark, Höög, Jörnvall, Samuelsson: "Molecular cloning and amino acid sequence of human 5-lipoxygenase." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 85, Issue 1, pp. 26-30, (1988) (PubMed).

Images

Western Blotting

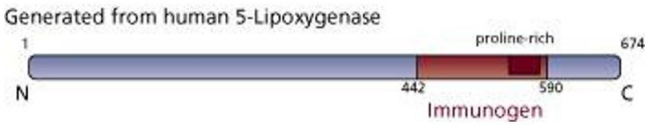
Image 1. Western blot analysis of 5-Lipoxygenase on SL-29 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilultion of 5-Lipoxygenase.



Immunofluorescence

Image 2. Immunofluorescence staining of A431 cells

Image 3.



Please check the product details page for more images. Overall 4 images are available for ABIN968117.