Anti-5 Lipoxygenase/ALOX5 Antibody

Catalog Number: *BA2703*

BOSTER®
antibody and ELISA experts
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Basic Information

Product Name	Anti-5 Lipoxygenase/ALOX5 Antibody
Gene Name	ALOX5
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, IHC
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ALOX5, different from the related rat and mouse sequences by two amino acids.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	78 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

ALOX5(ARACHIDONATE 5-LIPOXYGENASE), also known as LOG5 or 5-LO(5-LIPOXYGENASE), is an enzyme that in humans is encoded by the ALOX5 gene. ALOX5 is a member of the lipoxygenase family of enzymes which also transforms EFAs into leukotrienes and is a current target for pharmaceutical intervention in a number of diseases. The enzyme 5-lipoxygenase catalyzes 2 reactions in the formation of leukotrienes. The ALOX5 gene is mapped to chromosome 10q11.21 based on an alignment of the ALOX5 sequence with the genomic sequence. Human 5-LO contains 3 nuclear localization sequences(NLSs) and a phosphorylation site involved in nuclear localization. Compared with age-matched 5-LO competent mice, the 5-LO knockout mice developed less right heart hypertrophy. Pharmacologic inhibition or ALOX5

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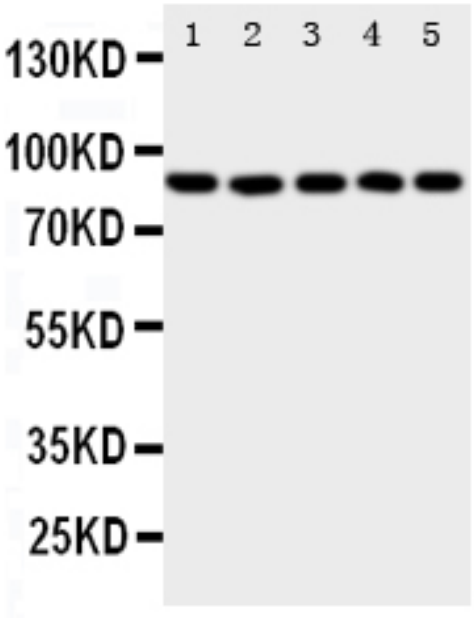
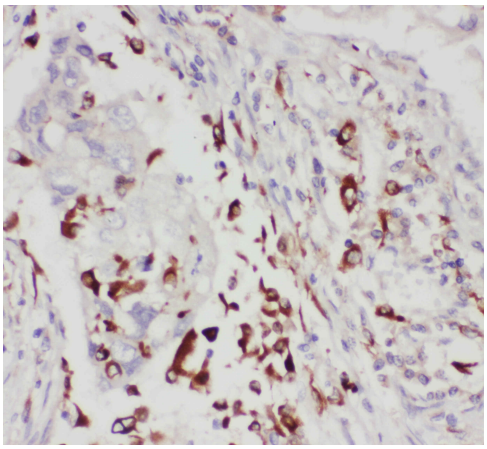
gene disruption resulted in a significant decrease of beta-amyloid production and gamma-secretase levels. ALOX5 activity is short-lived, apparently in part because of an intrinsic instability of the enzyme.

Selected Validation Data



Western blot analysis of 5 Lipoxygenase/ALOX5 using anti-5 Lipoxygenase/ALOX5 antibody (BA2703). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: SW620 whole cell lysates,
Lane 2: JURKAT whole cell lysates,
Lane 3: COLO320 whole cell lysates,
Lane 4: A549 whole cell lysates,
Lane 5: MCF-7 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-5 Lipoxygenase/ALOX5 antigen affinity purified polyclonal antibody (BA2703) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for 5 Lipoxygenase/ALOX5 at approximately 78 kDa. The expected band size for 5 Lipoxygenase/ALOX5 is at 78 kDa.



IHC analysis of 5 Lipoxygenase/ALOX5 using anti-5 Lipoxygenase/ALOX5 antibody (BA2703).
5 Lipoxygenase/ALOX5 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-5 Lipoxygenase/ALOX5 Antibody (BA2703) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.