

## Basic Information

<b>Product Name</b>	Anti-5 Lipoxygenase/ALOX5 Antibody	
<b>Gene Name</b>	ALOX5	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human	
<b>Tested Application</b>	WB,IHC	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	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.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	78 kDa	
<b>Dilution Ratios</b>	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°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## 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 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

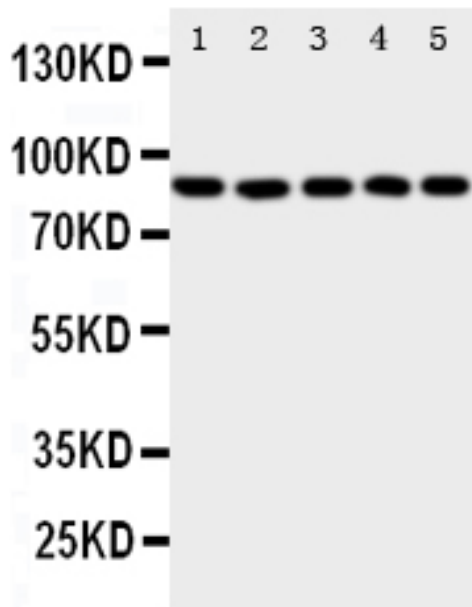


Figure 1. Western blot analysis of Anti-ALOX5 antibody (BA2703). The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: SW620 whole cell lysates, Lane 2: JURKAT whole cell lysates, Lane 3: COLO320 whole cell lysates, Lane 4: A549 whole cell lysates, Lane 5: MCF-7 whole cell lysates, Use rabbit Anti-ALOX5 1:1000, probed with a goat Anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ALOX5 at approximately 78KD. The expected band size for ALOX5 is at 78KD.

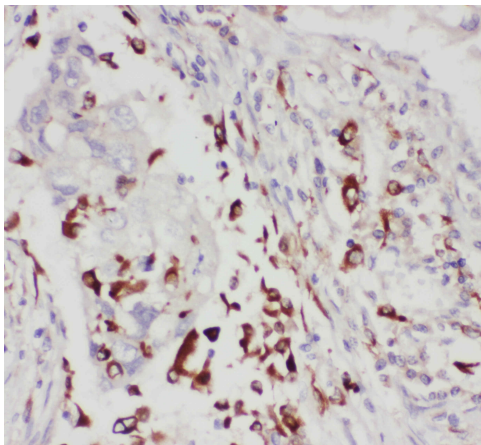


Figure 2. IHC analysis using Anti-ALOX5 antibody (BA2703) detected in paraffin-embedded section of human lung cancer tissue. Biotinylated goat Anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.