

## Basic Information

Product Name	Anti-ALDH2 Antibody (Clone#AFOI-1)		
Gene Name	ALDH2		
Source	Rabbit		
Clonality	Monoclonal		
Isotype	IgG		
Species Reactivity	human, mouse, rat		
Tested Application	WB, IHC, ICC/IF, IP		
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.		
Immunogen	A synthesized peptide derived from human ALDH2 Alcohol metabolism; ethanol degradation; acetate from ethanol: step 2/2.		
Concentration	500 ug/ml		
Purification	Affinity-chromatography		
Observed MW	56 kDa		
Dilution Ratios	Western blot (WB):	1:500-2000	
	Immunohistochemistry (IHC):	1:50-200	
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-200	
	ImmunoPrecipitation (IP):	1:50	

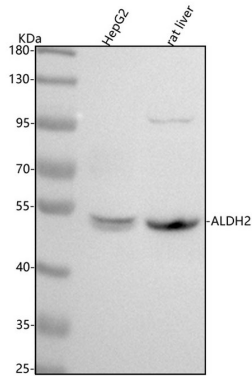
## Storage

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

## Background Information

ALDH2 (Aldehyde Dehydrogenase 2 Family) is a human gene. The enzyme encoded by this gene belongs to the aldehyde dehydrogenase family of enzymes that catalyze the chemical transformation from acetaldehyde to acetic acid. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Hsu et al. (1985) assigned the ALDH2 locus to chromosome 12 by means of a cDNA probe and Southern blot analysis of somatic cell hybrids. Using an unbiased proteomic search, Chen et al. (2008) identified mitochondrial ALDH2 as an enzyme whose activation correlated with reduced ischemic heart damage in rodent models. A high-throughput screen identified a small molecule activator of ALDH2, which they called Alda-1, that, when administered to rats before an ischemic event, reduced infarct size by 60%, most likely through its inhibitory effect on the formation of cytotoxic aldehydes.

## Selected Validation Data



Western blot analysis of anti-ALDH2 antibody (BM5651). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,

Lane 2: rat liver tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ALDH2 antigen affinity purified monoclonal antibody (BM5651) 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 ALDH2 at approximately 52 kDa. The expected band size for ALDH2 is at 56 kDa.