

## Basic Information

Product Name	Anti-ALDH2 Antibody (Clone#5G7)		
Gene Name	ALDH2		
Source	Mouse		
Clonality	Monoclonal		
Isotype	IgG2a		
Species Reactivity	human, mouse, rat		
Tested Application	WB, FCM, ICC/IF		
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.		
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ALDH2, different from the related mouse sequence by two amino acids, and from the related rat sequence by one amino acid.		
Concentration	500 ug/ml		
Purification	protein G purified.		
Observed MW	56 kDa		
Dilution Ratios	Western blot (WB):	1:500-2000	
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400	
	Flow Cytometry (Fixed):	1:50-200	

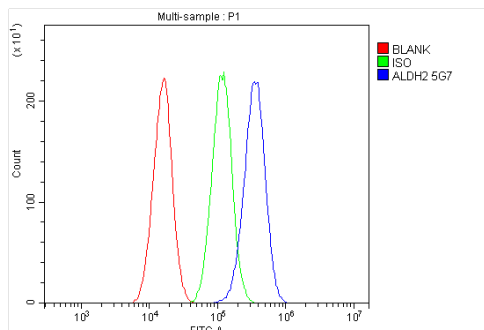
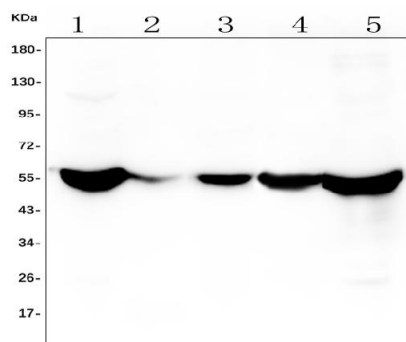
## Storage

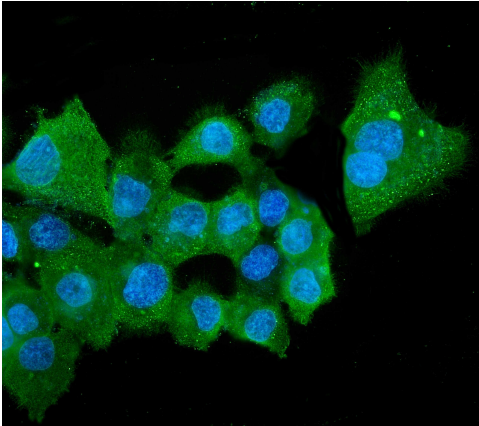
12 months from date of receipt, -20°C as supplied.

## 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





IF analysis of ALDH2 using anti-ALDH2 antibody (M00546-1).

ALDH2 was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-ALDH2 Antibody (M00546-1) at a dilution of 1:100. Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).