

Product name:	ALDH2 Rabbit Polyclonal Antibody
Cat number:	ABN06763
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from the N-terminal region of human ALDH2. AA range:41-90
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight:	56kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This protein belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have the cytosolic isozyme but not the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of a catalytically active form of the mitochondrial isozyme. The increased exposure to acetaldehyde in individuals with the catalytically inactive form may also confer greater susceptibility to many types of cancer. This gene encodes a mitochondrial isoform, catalytic activity: An aldehyde + NAD(+) + H₂O = an acid + NADH., disease: Defects in ALDH2 are a cause of acute alcohol sensitivity [MIM:610251]. There are wide individual differences in responses to drinking alcohol. Recent estimates claim that subjective effects (how people feel when they drink) vary from 200%-300% in the adult population, and ethanol metabolism (how quickly alcohol is absorbed into the bloodstream and metabolized by the liver) varies by approximately 200%. Unfortunately, alcohol researchers know very little about why such drastic differences occur between individuals and how individual differences in alcohol sensitivity might link drinking behavior with problematic alcohol-related outcomes., pathway: Alcohol metabolism; ethanol degradation; acetate from ethanol: step 2/2., polymorphism: Allele ALDH2*2 is associated with a very high incidence of acute alcohol intoxication in Orientals and South American Indians, as compared to Caucasians., similarity: Belongs to the aldehyde dehydrogenase family., subunit: Homotetramer.,