

## Summary

|                        |                                  |
|------------------------|----------------------------------|
| <b>Production Name</b> | ALDH2 Rabbit Polyclonal Antibody |
| <b>Description</b>     | Rabbit Polyclonal Antibody       |
| <b>Host</b>            | Rabbit                           |
| <b>Application</b>     | WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA  |
| <b>Reactivity</b>      | Human,Mouse,Rat                  |

## Performance

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| <b>Conjugation</b>  | Unconjugated                                                                                      |
| <b>Modification</b> | Unmodified                                                                                        |
| <b>Isotype</b>      | IgG                                                                                               |
| <b>Clonality</b>    | Polyclonal                                                                                        |
| <b>Form</b>         | Liquid                                                                                            |
| <b>Storage</b>      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.          |
| <b>Buffer</b>       | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| <b>Purification</b> | Affinity purification                                                                             |

## Immunogen

|                          |                                                                                                                                 |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | ALDH2                                                                                                                           |
| <b>Alternative Names</b> | ALDH2; ALDM; Aldehyde dehydrogenase, mitochondrial; ALDH class 2; ALDH-E2; ALDHI                                                |
| <b>Gene ID</b>           | 217.0                                                                                                                           |
| <b>SwissProt ID</b>      | P05091.The antiserum was produced against synthesized peptide derived from the N-terminal region of human ALDH2. AA range:41-90 |

## Application

|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:500-1:2000, IHC-P 1:100-1:300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:50-200 |
| <b>Molecular Weight</b> | 56kDa                                                                        |

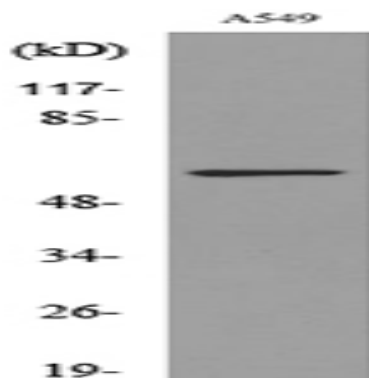
## Background

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(+) + H<sub>2</sub>O = 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.,

## Research Area

Glycolysis / Gluconeogenesis; Ascorbate and aldarate metabolism; Fatty acid metabolism; Valine; leucine and isoleucine degradation; Lysine degradation; Arginine and proline metabolism; Histidine metabolism; Tryptophan metabolism; beta-Alanine metabolism; Glycerolipid metabolism; Pyruvate metabolism; Propanoate metabolism; Butanoate metabolism; Limonene and pinene degradation;

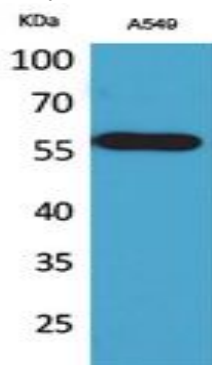
## Image Data



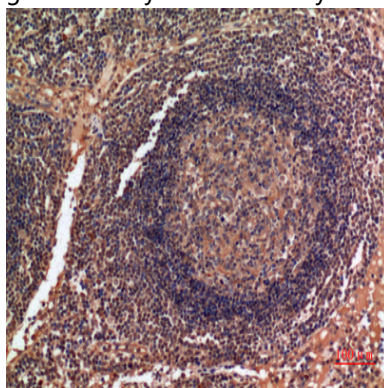
**Product Name: ALDH2 Rabbit Polyclonal Antibody**  
**Catalog #: APRab06763**



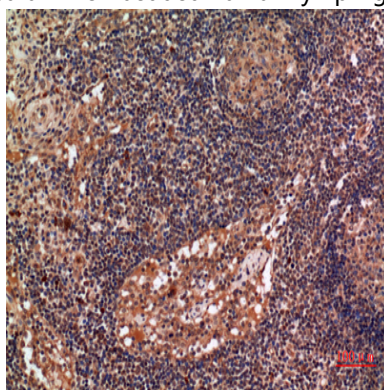
Western blot analysis of lysate from A549 cells, using ALDH2 Antibody.



Western Blot analysis of A549 cells using ALDH2 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



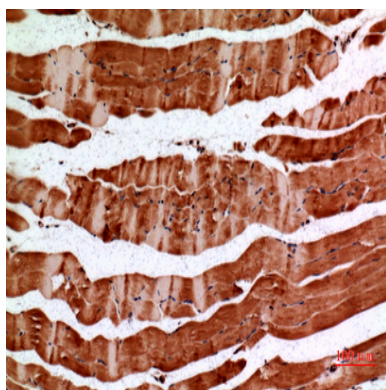
Immunohistochemical analysis of paraffin-embedded human-lymph-gland, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-lymph-gland, antibody was diluted at 1:100

**Product Name: ALDH2 Rabbit Polyclonal Antibody**  
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Immunohistochemical analysis of paraffin-embedded mouse-muscle, antibody was diluted at 1:100

### **Note**

For research use only.