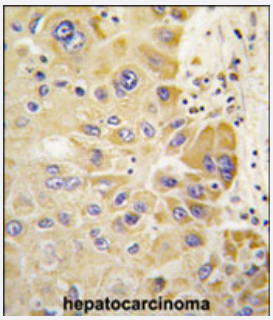
ALDH2 polyclonal antibody

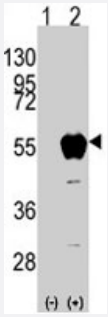
Catalog # PAB3078 Size 400 uL

Applications



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma reacted with ALDH2 polyclonal antibody (Cat # PAB3078) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Western Blot (Transfected lysate)

Western blot analysis of ALDH2 (arrow) using rabbit ALDH2 polyclonal antibody (Cat # PAB3078). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALDH2 gene (Lane 2) (Origene Technologies).

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of ALDH2.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to internal region of human ALDH2.
Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Protein A purification

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Recommend Usage	Western Blot (1:1000) Immunohistochemistry (1:10-50) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

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Gene Info — ALDH2

Entrez GeneID	217
Protein Accession#	NP_000681;P05091
Gene Name	ALDH2
Gene Alias	ALDH-E2, ALDHI, ALDM, MGC1806
Gene Description	aldehyde dehydrogenase 2 family (mitochondrial)
Omim ID	100650
Gene Ontology	Hyperlink

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Gene Summary	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 this enzyme, 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 only the cytosolic isozyme, missing the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of the mitochondrial isozyme. This gene encodes a mitochondrial isoform, which has a low Km for acetaldehydes, and is localized in mitochondrial matrix. [provided by RefSeq
Other Designations	ALDH class 2|acetaldehyde dehydrogenase 2|liver mitochondrial ALDH|mitochondrial aldehyde dehydrogenase 2|nucleus-encoded mitochondrial aldehyde dehydrogenase 2

Publication Reference

- Genetic polymorphisms in cytochrome P4502E1, alcohol and aldehyde dehydrogenases and the risk of esophageal squamous cell carcinoma in Gansu Chinese males.

  Guo YM, Wang Q, Liu YZ, Chen HM, Qi Z, Guo QH.

  World Journal of Gastroenterology 2008 Mar; 14(9):1444.

- Alcohol intake and blood pressure: a systematic review implementing a Mendelian randomization approach.

  Chen L, Davey Smith G, Harbord RM, Lewis SJ.

  PLoS Medicine 2008 Mar; 5(3):e52.

- A PBPK model for evaluating the impact of aldehyde dehydrogenase polymorphisms on comparative rat and human nasal tissue acetaldehyde dosimetry.

  Teeguarden JG, Bogdanffy MS, Covington TR, Tan C, Jarabek AM.

  Inhalation Toxicology 2008 Feb; 20(4):375.

Pathway

- 3-Chloroacrylic acid degradation
- Arginine and proline metabolism
- Ascorbate and aldarate metabolism
- beta-Alanine metabolism
- Butanoate metabolism
- Fatty acid metabolism

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- Glycerolipid metabolism
- Glycolysis / Gluconeogenesis
- Histidine metabolism
- Limonene and pinene degradation
- Lysine degradation
- Metabolic pathways
- Propanoate metabolism
- Pyruvate metabolism
- Tryptophan metabolism
- Valine

Disease

- Acute Disease
- Adenocarcinoma
- Adenoma
- Adenomatous Polyps
- Alcohol Withdrawal Delirium
- Alcoholic Intoxication
- Alcoholic Neuropathy
- Alcoholism
- Alcohol-Related Disorders
- Alzheimer disease
- Angina Pectoris
- Antisocial Personality Disorder
- Asthma
- Atherosclerosis

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- Atrophy
- Attention Deficit Disorder with Hyperactivity
- Behavior Control
- Brain Infarction
- Breast cancer
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Carotid Artery Diseases
- Cell Transformation
- Cocarcinogenesis
- Cognition Disorders
- Colon cancer
- Colonic Neoplasms
- Colonic Polyps
- Colorectal Neoplasms
- Coronary Artery Disease
- Coronary Disease
- Dementia
- Dermatitis
- Diabetes Mellitus
- Diabetic Angiopathies
- Diabetic Neuropathies
- Diabetic Retinopathy
- Digestive System Neoplasms

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- Disease Models
- Disease Progression
- Disease Susceptibility
- Diseases in Twins
- DNA Damage
- Drug Hypersensitivity
- Ductus Arteriosus
- Ectodermal Dysplasia
- Edema
- Esophageal Neoplasms
- Fatty Liver
- Femur Head Necrosis
- Flushing
- Gastritis
- Gastrointestinal Neoplasms
- Genetic Predisposition to Disease
- Genomic Instability
- Head and Neck Neoplasms
- Heart Diseases
- Helicobacter Infections
- Hepatitis
- Hepatitis C
- Hypersensitivity
- Hypertension
- Infant
- Kidney Failure

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- Laryngeal Neoplasms
- Liver Cirrhosis
- Liver Diseases
- Liver Neoplasms
- Lung Neoplasms
- Melanosis
- Mesothelioma
- Metabolic Syndrome X
- Metaplasia
- Micronuclei
- Mouth Neoplasms
- Myocardial Infarction
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasms
- Neuropsychological Tests
- Obesity
- Obstetric Labor
- Occupational Diseases
- Oropharyngeal Neoplasms
- Osteonecrosis
- Osteoporosis
- Pancreatic cancer
- Pancreatic Neoplasms
- Pancreatitis
- Peptic Ulcer

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- Perception
- Periodontal Pocket
- Periodontitis
- Pharyngeal Neoplasms
- Pleural Neoplasms
- Precancerous Conditions
- Pregnancy Complications
- Prostatic Neoplasms
- Psychiatric Status Rating Scales
- Psychology
- Psychomotor Performance
- Pulmonary Disease
- Reaction Time
- Rectal Neoplasms
- Retinopathy of Prematurity
- Schizophrenia
- Sensation
- Set (Psychology)
- Stomach Neoplasms
- Substance Withdrawal Syndrome
- Unconsciousness
- Urinary Bladder Neoplasms
- Werner syndrome
- Wounds and Injuries

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