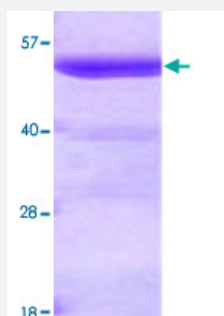


Bioactive

ALDH2 (Human) Recombinant Protein

Catalog # P3479 Size 100 ug

Applications



Specification

Product Description

Human ALDH2 (NP_000681, 18 a.a. - 517 a.a.) partial recombinant protein expressed in *Escherichia coli*.

Sequence

MSAAATQAVPAPNQQPEVFCNQIFINNEWHDAVSRKTFPTVNPSTGEVICQVAEGDKEDVDKAV
KAARAAFQLGSPWRRMDASHRGRLNRLADLIERDRTYLAALETLDNGKPYVISYLVLDLDMVLKC
LRYAGWADKYHGKTIPIDGDFSYTRHEPVGVCGQIIPWNFPLLMQAWKLGALATGNVVMKV
AEQTPLTALYVANLIKEAGFPVGVNVPFGPTAGAAIASHEDVDKVAFTGSTEIGRVIQVAAGSS
NLKRVTLLELGGKSPNIIMSDADMDWAVEQAHFALFFNQGCCAGSRTFVQEDYDEFVSV
RAKSRVVGPNPFDKTEQGPQVDETQFKKILGYINTGKQEGAKLLCGGGIAADRGYFIQPTVFGDV
QDGMTIAKEEIFGPVMQLKFKTIEVVGRANNSTYGLAAAVFTKDLKANYLSQALQAGTVWVNC
YDVFGAQSPFGGYKMSGSGRELGEYGLQAYTEVKTIVKVPQKNS

Host Escherichia coli

Theoretical MW (kDa) 54.5

Form Liquid

Preparation Method *Escherichia coli* expression system

Purification Conventional Chromatography

Purity > 90% by SDS-PAGE

Endotoxin Level	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Activity	Specific activity is > 250 pmol/min/ug, and was obtained by measuring the increase of NADH in absorbance at 340 nm resulting from the reduction of NAD at pH 8.0 at 25°C.
Quality Control Testing	Loading 3 ug protein in 15% SDS-PAGE
Storage Buffer	In 20 mM Tris-HCl buffer, 1 mM EDTA, pH 7.5 (1 mM DTT, 10% glycerol).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — ALDH2

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

Pathway

- [3-Chloroacrylic acid degradation](#)
- [Arginine and proline metabolism](#)
- [Ascorbate and aldarate metabolism](#)
- [beta-Alanine metabolism](#)
- [Butanoate metabolism](#)
- [Fatty acid metabolism](#)
- [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](#)
- [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](#)
- [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](#)
- [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](#)
- [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](#)