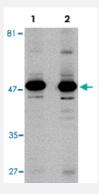


ALDH3A1 polyclonal antibody

Catalog # PAB16545 Size 100 ug

Applications



Western Blot (Tissue lysate)

Western blot analysis of ALDH3A1 in human stomach lysate with ALDH3A1 polyclonal antibody (Cat # PAB16545) at (Lane 1) 1 and (Lane 2) 2 ug/mL .

Specification	
Product Description	Rabbit polyclonal antibody raised against synthetic peptide of ALDH3A1.
Immunogen	A synthetic peptide corresponding to C-terminus 13 amino acids of human ALDH3A1.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Form	Liquid
Recommend Usage	Western Blot (1-2 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.02% sodium azide)
Storage Instruction	Store at 4°C for three months. 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

Western Blot (Tissue lysate)

Western blot analysis of ALDH3A1 in human stomach lysate with ALDH3A1 polyclonal antibody (Cat # PAB16545) at (Lane 1) 1 and (Lane 2) 2 ug/mL .

Enzyme-linked Immunoabsorbent Assay

Gene Info — ALDH3A1	
Entrez GenelD	<u>218</u>
Protein Accession#	NP_000682
Gene Name	ALDH3A1
Gene Alias	ALDH3, ALDHIII, MGC10406
Gene Description	aldehyde dehydrogenase 3 family, memberA1
Omim ID	<u>100660</u>
Gene Ontology	<u>Hyperlink</u>
Gene Summary	Aldehyde dehydrogenases oxidize various aldehydes to the corresponding acids. They are involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. The enzyme encoded by this gene forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. It is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq
Other Designations	aldehyde dehydrogenase 3A1 aldehyde dehydrogenase isozyme 3 aldehyde dehydrogenase typ e III aldehyde dehydrogenase, dimeric NADP-preferring stomach aldehyde dehydrogenase

Publication Reference

Mechanisms involved in the protection of UV-induced protein inactivation by the corneal crystallin ALDH3A1.

Estey T, Cantore M, Weston PA, Carpenter JF, Petrash JM, Vasiliou V.

The Journal of Biological Chemistry 2007 Feb; 282(7):4382.



Corneal and stomach expression of aldehyde dehydrogenases: from fish to mammals.

Pappa A, Sophos NA, Vasiliou V.

Chemico-Biological Interactions 2001 Jan; 130-132(1-3):181.

Application: WB-Ti, Pig, Mouse, Rat, Chicken, Turkey, Rabbit, Frog, Zebrafish, T, Eye, Stomach

Polymorphisms of human aldehyde dehydrogenases. Consequences for drug metabolism and disease.

Vasiliou V, Pappa A.

Pharmacology 2000 Sep; 61(3):192.

Pathway

- <u>Drug metabolism cytochrome P450</u>
- Glycolysis / Gluconeogenesis
- Histidine metabolism
- Metabolic pathways
- Metabolism of xenobiotics by cytochrome P450
- Phenylalanine metabolism
- Tyrosine metabolism

Disease

- Attention Deficit Disorder with Hyperactivity
- Autistic Disorder
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Drug Toxicity
- Genetic Predisposition to Disease



- Kidney Failure
- NARP
- Neoplasms
- Ovarian cancer
- Ovarian Neoplasms
- Schizophrenia
- Tobacco Use Disorder