

## Product datasheet for **CF500615**

### ALDH2 Mouse Monoclonal Antibody [Clone ID: OTI4H2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI4H2
Applications:	FC, IF
Recommended Dilution:	IF 1:50~100, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG3
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human ALDH2 (NP_000681) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	54.4 kDa
Gene Name:	aldehyde dehydrogenase 2 family member
Database Link:	<a href="#">NP_000681</a> <a href="#">Entrez Gene 11669 Mouse</a> <a href="#">Entrez Gene 29539 Rat</a> <a href="#">Entrez Gene 217 Human</a> <a href="#">P05091</a>



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**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, which has a low  $K_m$  for acetaldehydes, and is localized in mitochondrial matrix. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

**Synonyms:**

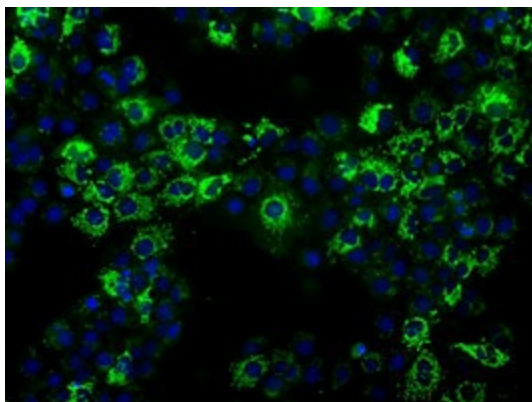
ALDH-E2; ALDHI; ALDM

**Protein Families:**

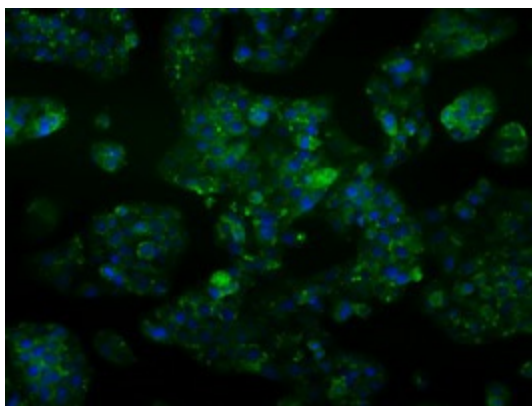
Druggable Genome

**Protein Pathways:**

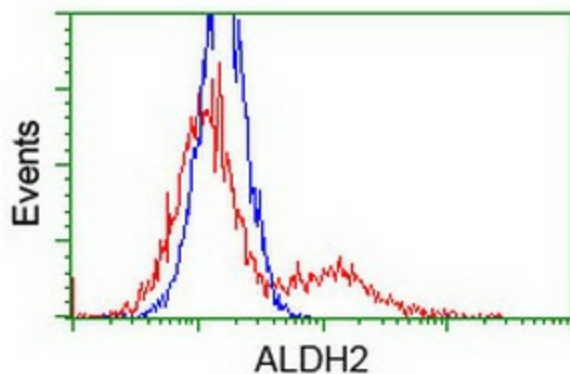
Arginine and proline metabolism, Ascorbate and aldarate metabolism, beta-Alanine metabolism, Butanoate metabolism, Fatty acid metabolism, Glycerolipid metabolism, Glycolysis / Gluconeogenesis, Histidine metabolism, Limonene and pinene degradation, Lysine degradation, Metabolic pathways, Propanoate metabolism,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

**Product images:**

Anti-ALDH2 mouse monoclonal antibody ([TA500615]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ALDH2 ([RC200505]).



Immunofluorescent staining of HepG2 cells using anti-ALDH2 mouse monoclonal antibody ([TA500615]).



HEK293T cells transfected with either [RC200505] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-ALDH2 antibody ([TA500615]), and then analyzed by flow cytometry.