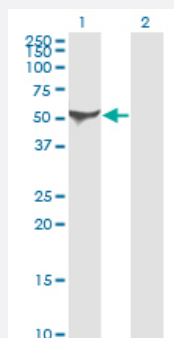


# ALDH1A1 monoclonal antibody (M05), clone 1G6

Catalog # H00000216-M05

Size 100 ug

## Applications

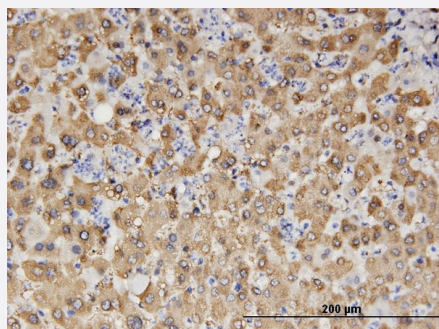


### Western Blot (Transfected lysate)

Western Blot analysis of ALDH1A1 expression in transfected 293T cell line by ALDH1A1 monoclonal antibody (M05), clone 1G6.

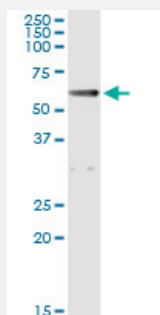
Lane 1: ALDH1A1 transfected lysate (Predicted MW: 54.9 KDa).

Lane 2: Non-transfected lysate.



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

Immunoperoxidase of monoclonal antibody to ALDH1A1 on formalin-fixed paraffin-embedded human liver. [antibody concentration 3 ug/ml]

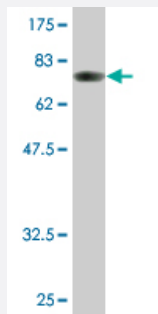
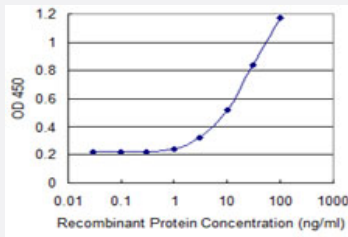


### Immunoprecipitation

Immunoprecipitation of ALDH1A1 transfected lysate using anti-ALDH1A1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with ALDH1A1 MaxPab rabbit polyclonal antibody.

## Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ALDH1A1 is 1 ng/ml as a capture antibody.



Western Blot detection against Immunogen (80.63 KDa) .

## Specification

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Description</b>           | Mouse monoclonal antibody raised against a full-length recombinant ALDH1A1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Immunogen</b>                     | ALDH1A1 (AAH01505, 1 a.a. ~ 501 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Sequence</b>                      | <p>MSSSGTPDLPVLLTDLKIQYTKIFINNEWHDSVSGKKFPVFNPAEEEEELCQVEEGDKEDVDKAVK</p> <p>AARQAFQIGSPWRTMDASERGRLLYKLADLIERDRLLLATMESMNGGKLYSNAYLNDLAGCIKTLR</p> <p>YCAGWADKIQGRTPIDGNFFTYTRHEPIGVCGQIIPWNFPLVMLWKIGPALSCGNTVVVKPAEQTP</p> <p>LTALHVASLIKEAGFPFGVNVNPGYGPTAGAAISSHMDIDKVAFTGSTEVGKLIKEAAGKSNLKRV</p> <p>TLELGKSPCMLADADLDNAVEFAHHGVFYHQGCCIAASRIFVEESYDEFVRRSVERAKKYILG</p> <p>NPLTPGVTQGPQIDKEQYDKILDIESGKKEGAKLECGGPGWGNKGYFVQPTVFSNVDEMRIA</p> <p>KEEFGPVQQIMKFKSLDDVIKRANNTFYGLSAGVFTKIDIDKAITSSALQAGTVVWNCYGVVSAQCP</p> <p>FGGFKMSGNGRELGEYGFHEYTEVKTVTVKISQKNS</p> |
| <b>Host</b>                          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Reactivity</b>                    | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Interspecies Antigen Sequence</b> | Mouse (87); Rat (86)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Isotype</b>                       | IgG2a Kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Quality Control Testing</b>       | Antibody Reactive Against Recombinant Protein.<br>Western Blot detection against Immunogen (80.63 KDa) .                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

**Storage Buffer**

In 1x PBS, pH 7.4

**Storage Instruction**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

## Applications

- Western Blot (Transfected lysate)

Western Blot analysis of ALDH1A1 expression in transfected 293T cell line by ALDH1A1 monoclonal antibody (M05), clone 1G6.

Lane 1: ALDH1A1 transfected lysate (Predicted MW: 54.9 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

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

Immunoperoxidase of monoclonal antibody to ALDH1A1 on formalin-fixed paraffin-embedded human liver. [antibody concentration 3 ug/ml]

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- Immunoprecipitation

Immunoprecipitation of ALDH1A1 transfected lysate using anti-ALDH1A1 monoclonal antibody and Protein A Magnetic Bead, and immunoblotted with ALDH1A1 MaxPab rabbit polyclonal antibody.

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ALDH1A1 is 1 ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

## Gene Info — ALDH1A1

**Entrez GeneID**[216](#)**GeneBank Accession#**[BC001505](#)

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protein Accession# | <a href="#">AAH01505</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Gene Name          | ALDH1A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Gene Alias         | ALDC, ALDH-E1, ALDH1, ALDH11, MGC2318, PUMB1, RALDH1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Gene Description   | aldehyde dehydrogenase 1 family, member A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Gene Ontology      | <a href="#">Hyperlink</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Gene Summary       | This protein belongs to the aldehyde dehydrogenases 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 cytosolic isoform, which has a high affinity for aldehydes. [provided by RefSeq] |
| Other Designations | ALDH class 1 acetaldehyde dehydrogenase 1 aldehyde dehydrogenase 1, soluble aldehyde dehydrogenase 1A1 aldehyde dehydrogenase, liver cytosolic retinal dehydrogenase 1 retinaldehyde dehydrogenase 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Publication Reference

- [The Presence and Potential Role of ALDH1A2 in the Glioblastoma Microenvironment.](#)

Stephanie Sanders, Denise M Herpai, Analiz Rodriguez, Yue Huang, Jeff Chou, Fang-Chi Hsu, Darren Seals, Ryan Mott, Lance D Miller, Waldemar Debinski.

Cells 2021 Sep; 10(9):2485.

Application: WB-Ce, Human, THP-1 cells

## Pathway

- [Metabolic pathways](#)
- [Retinol metabolism](#)

## Disease

- [Alcoholism](#)
- [Breast cancer](#)

- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Chromosome Deletion](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Disease Models](#)
- [Drug Toxicity](#)
- [Genetic Predisposition to Disease](#)
- [Kidney Failure](#)
- [Lymphoma](#)
- [Neoplasms](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Schizophrenia](#)
- [Tobacco Use Disorder](#)