

## Mouse anti-Human ALDH7A1 Monoclonal Antibody | anti-ALDH7A1 antibody

Anti-ALDH7A1 Antibody, Mouse Monoclonal

| CATALOG # | HOST  | REACTIVITY | APPLICATIONS         |
|-----------|-------|------------|----------------------|
| AAA255435 | Mouse | Human      | Immunohistochemistry |

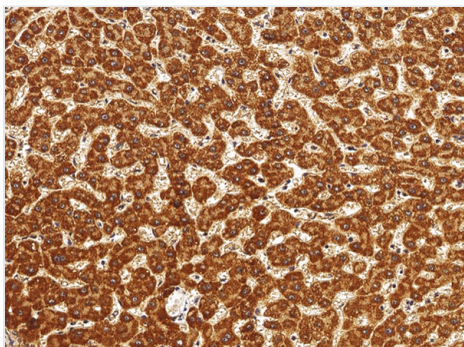
### PRODUCT SYNONYMS

ALDH7A1; Monoclonal Antibody; Anti-ALDH7A1 Antibody; Mouse Monoclonal; ALDH7A1 Antibody; Mouse MAb; aldehyde dehydrogenase 7 family; member A1; Anti-ATQ1 Antibody; Anti-EPD Antibody; Anti-PDE Antibody; anti-ALDH7A1 antibody

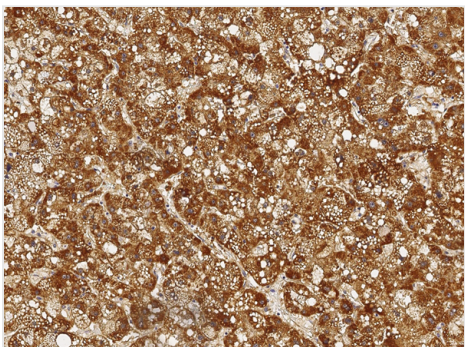
### PRODUCT SPECIFICATIONS

|                                                   |                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                              | Mouse                                                                                                                                                                                                                                                                                            |
| Reactivity                                        | Human                                                                                                                                                                                                                                                                                            |
| Clonality                                         | Monoclonal                                                                                                                                                                                                                                                                                       |
| Isotype                                           | Mouse IgG1                                                                                                                                                                                                                                                                                       |
| Clone Number                                      | 11                                                                                                                                                                                                                                                                                               |
| Specificity                                       | Human ALDH7A1                                                                                                                                                                                                                                                                                    |
| Purity/Purification                               | Protein A                                                                                                                                                                                                                                                                                        |
| Form/Format                                       | Liquid; 0.2um filtered solution in PBS                                                                                                                                                                                                                                                           |
| Applicable Applications for anti-ALDH7A1 antibody | IHC (Immunohistochemistry)                                                                                                                                                                                                                                                                       |
| Immunogen                                         | Recombinant Human ALDH7A1 protein                                                                                                                                                                                                                                                                |
| Conjugation                                       | Unconjugated                                                                                                                                                                                                                                                                                     |
| Preparation                                       | This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human ALDH7A1 (rh ALDH7A1). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography. |
| Preparation and Storage                           | This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.                            |

IMAGES



**IHC (Immunohistochemistry)**  
Immunochemical staining of human ALDH7A1 in human cirrhosis with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections). The image showing positive staining of hepatocyte.



**IHC (Immunohistochemistry)**  
Immunochemical staining of human ALDH7A1 in human hepatoma with mouse monoclonal antibody (1:60, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

|                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-ALDH7A1 antibody</b> | ALDH7A1 (Aldehyde dehydrogenase 7 family, member A1) is a member of subfamily 7 in the aldehyde dehydrogenase family. These enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. Mammalian ALDH7A1 is homologous to plant ALDH7B1 which protects against various forms of stress such as increased salinity, dehydration and treatment with oxidants or pesticides. In mammals, ALDH7A1 is known to play a primary role during lysine catabolism through the NAD <sup>+</sup> -dependent oxidative conversion of amino adipate semialdehyde (AASA) to its corresponding carboxylic acid, alpha-amino adipic acid. Deleterious mutations in human ALDH7A1 are responsible for pyridoxine-dependent and folinic acid-responsive seizures. ALDH7A1 is a novel aldehyde dehydrogenase expressed in multiple subcellular compartments that protects against hyperosmotic stress by generating osmolytes and metabolizing toxic aldehydes. |
| <b>References</b>                                            | Brocker C, et al. (2011) Aldehyde dehydrogenase 7A1 (ALDH7A1) attenuates reactive aldehyde and oxidative stress induced cytotoxicity. Chem Biol Interact. 191(1-3): 269-77. Brocker C, et al. (2010) Aldehyde dehydrogenase 7A1 (ALDH7A1) is a novel enzyme involved in cellular defense against hyperosmotic stress. J Biol Chem. 285(24): 18452-63.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

NCBI AND UNIPROT INFORMATION

|                                         |                                                                |
|-----------------------------------------|----------------------------------------------------------------|
| <b>NCBI GI #</b>                        | 188035924                                                      |
| <b>NCBI GeneID</b>                      | 501                                                            |
| <b>NCBI Accession #</b>                 | NP_001173.2                                                    |
| <b>NCBI GenBank Nucleotide #</b>        | NM_001182.4                                                    |
| <b>UniProt Accession #</b>              | P49419; O14619; Q6IPU8; Q9BUL4; B2R669; B4DIC7; B4DMA0; E7EPT3 |
| <b>Molecular Weight</b>                 | 51,411 Da                                                      |
| <b>NCBI Official Full Name</b>          | alpha-amino adipic semialdehyde dehydrogenase isoform 1        |
| <b>NCBI Official Synonym Full Names</b> | aldehyde dehydrogenase 7 family member A1                      |
| <b>NCBI Official Symbol</b>             | ALDH7A1                                                        |
| <b>NCBI Official Synonym Symbols</b>    | EPD; PDE; ATQ1                                                 |
| <b>NCBI Protein Information</b>         | alpha-amino adipic semialdehyde dehydrogenase                  |
| <b>UniProt Protein Name</b>             | Alpha-amino adipic semialdehyde dehydrogenase                  |
| <b>UniProt Gene Name</b>                | ALDH7A1                                                        |
| <b>UniProt Synonym Gene Names</b>       | ATQ1; Alpha-AASA dehydrogenase; P6c dehydrogenase              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/monoclonal/aldh7a1-antibody-clone-11-immunohistochemistry-elisa/255435>