

## Mouse Aconitase 2 Monoclonal Antibody | anti-ACO2 antibody

Anti-Aconitase 2 Antibody Picoband (monoclonal, 4C12D1)

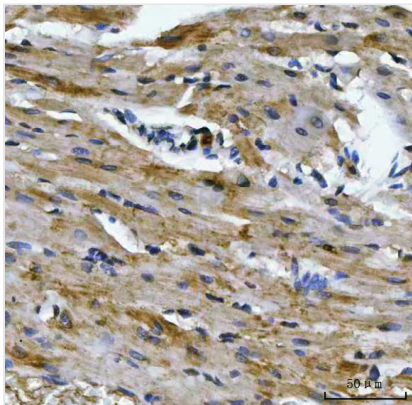
|                              |                      |                                        |                                                           |
|------------------------------|----------------------|----------------------------------------|-----------------------------------------------------------|
| CATALOG #<br><b>AAA19706</b> | HOST<br><b>Mouse</b> | REACTIVITY<br><b>Human, Mouse, Rat</b> | APPLICATIONS<br><b>Western Blot, Immunohistochemistry</b> |
|------------------------------|----------------------|----------------------------------------|-----------------------------------------------------------|

### PRODUCT SYNONYMS

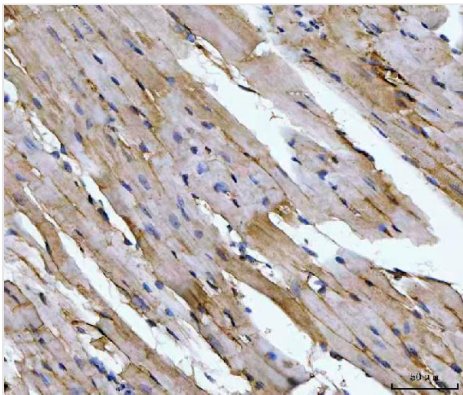
Aconitase 2; Monoclonal Antibody; Anti-Aconitase 2 Antibody Picoband (monoclonal; 4C12D1); anti-ACO2 antibody

### PRODUCT SPECIFICATIONS

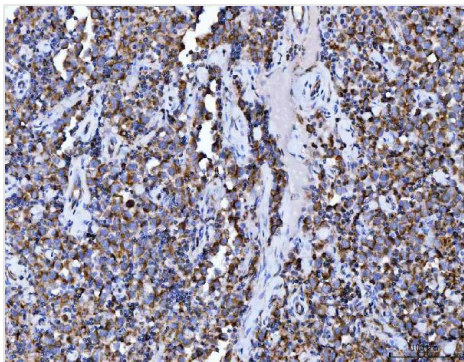
|                                                |                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Mouse                                                                                                                                                                                                                                                                                      |
| Reactivity                                     | Human, Mouse, Rat                                                                                                                                                                                                                                                                          |
| Clonality                                      | Monoclonal                                                                                                                                                                                                                                                                                 |
| Isotype                                        | Mouse IgG1                                                                                                                                                                                                                                                                                 |
| Clone Number                                   | 4C12D1                                                                                                                                                                                                                                                                                     |
| Purity/Purification                            | Immunogen affinity purified.                                                                                                                                                                                                                                                               |
| Form/Format                                    | Lyophilized<br>Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                                                                                |
| Concentration                                  | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)                                                                                                                                                                                                  |
| Applicable Applications for anti-ACO2 antibody | WB (Western Blot), IHC (Immunohistochemistry)                                                                                                                                                                                                                                              |
| Application Notes                              | WB: 0.25-0.5 ug/ml, Human, Mouse, Rat<br>IHC-P: 2-5 ug/ml, Human, Mouse, Rat<br>Tested Species: In-house tested species with positive results.<br>Enhanced Chemiluminescent Kit with anti-Mouse IgG for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit for IHC(P). |
| Reconstitution                                 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                                                                                                                                  |
| Immunogen                                      | A synthetic peptide corresponding to a sequence at the C-terminus of human Aconitase 2 (561-596aa TSQRLQLLEPFDKWDGKDLEDLQILIKVKGKCTTDH), identical to the related mouse and rat sequences.                                                                                                 |
| Preparation and Storage                        | Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.                                                               |



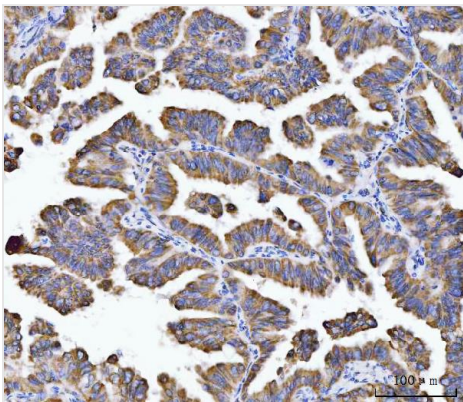
**IHC (Immunohistochemistry)**  
Figure 8. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706).Aconitase 2 was detected in a paraffin-embedded section of rat heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



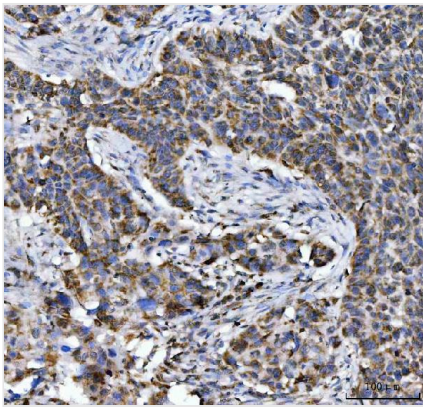
**IHC (Immunohistochemistry)**  
Figure 7. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706).Aconitase 2 was detected in a paraffin-embedded section of mouse heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



**IHC (Immunohistochemistry)**  
Figure 6. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706).Aconitase 2 was detected in a paraffin-embedded section of human testicular germ cell tumor tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.

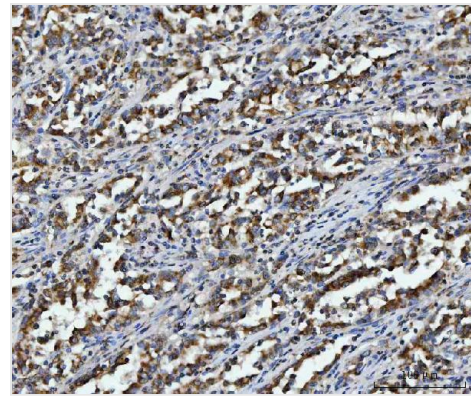


**IHC (Immunohistochemistry)**  
Figure 5. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706).Aconitase 2 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



#### IHC (Immunohistochemistry)

Figure 4. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706). Aconitase 2 was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



#### IHC (Immunohistochemistry)

Figure 3. IHC analysis of Aconitase 2 using anti-Aconitase 2 antibody (AAA19706). Aconitase 2 was detected in a paraffin-embedded section of human hepatocellular carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-Aconitase 2 Antibody (AAA19706) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.

## ADDITIONAL INFORMATION

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-ACO2 antibody</b> | Aconitase 2, mitochondrial is a protein that in humans is encoded by the ACO2 gene. The protein encoded by this gene belongs to the aconitase/IPM isomerase family. It is an enzyme that catalyzes the interconversion of citrate to isocitrate via cis-aconitate in the second step of the TCA cycle. This protein is encoded in the nucleus and functions in the mitochondrion. It was found to be one of the mitochondrial matrix proteins that are preferentially degraded by the serine protease 15 (PRSS15), also known as Lon protease, after oxidative modification. |
| <b>Product Categories/Family for anti-ACO2 antibody</b>   | <a href="#">Primary Antibodies</a> , <a href="#">Mouse Monoclonal Antibodies</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## NCBI AND UNIPROT INFORMATION

|                                         |                                                                                                                            |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>NCBI GI #</b>                        | <a href="#">6686275</a>                                                                                                    |
| <b>NCBI GeneID</b>                      | <a href="#">50</a>                                                                                                         |
| <b>UniProt Accession #</b>              | <a href="#">Q99798</a> ; <a href="#">O75809</a> ; <a href="#">Q5JZ41</a> ; <a href="#">Q6FHX0</a> ; <a href="#">Q8TAQ6</a> |
| <b>Molecular Weight</b>                 | 780                                                                                                                        |
| <b>NCBI Official Full Name</b>          | Aconitate hydratase, mitochondrial                                                                                         |
| <b>NCBI Official Synonym Full Names</b> | aconitase 2, mitochondrial                                                                                                 |
| <b>NCBI Official Symbol</b>             | ACO2                                                                                                                       |
| <b>NCBI Official Synonym Symbols</b>    | ICRD; ACONM                                                                                                                |
| <b>NCBI Protein Information</b>         | aconitate hydratase, mitochondrial; citrate hydro-lyase                                                                    |
| <b>UniProt Protein Name</b>             | Aconitate hydratase, mitochondrial                                                                                         |
| <b>UniProt Gene Name</b>                | <b>ACO2</b>                                                                                                                |
| <b>UniProt Synonym Gene Names</b>       | Aconitase                                                                                                                  |
| <b>UniProt Entry Name</b>               | ACON_HUMAN                                                                                                                 |

**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.

