BOSTER
antibody and ELISA experts

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# Anti-Methylmalonyl Coenzyme A mutase Antibody Picoband® (monoclonal, 2D6)

**Catalog Number:** M01065

## About MUT

Methylmalonyl-CoA mutase (MUT) is a mitochondrial enzyme that catalyzes the isomerization of methylmalonyl-CoA to succinyl-CoA. This gene is mapped to 6p12.3. MUT requires a vitamin B12-derived prosthetic group, adenosylcobalamin (commonly referred to as AdoCbl), to function. And the product of this enzyme, succinyl-CoA, is a key molecule of the TCA cycle.

## Overview

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| Product Name | Anti-Methylmalonyl Coenzyme A mutase Antibody Picoband® (monoclonal, 2D6) |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Methylmalonyl Coenzyme A mutase Antibody Picoband® (monoclonal, 2D6) catalog # M01065. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | IHC, WB |
| Clonality | Monoclonal 2D6 |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Mouse |
| Uniprot ID | P22033 |

## Technical Details

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| Immunogen | A synthetic peptide corresponding to a sequence at the N-terminus of human MUT, different from the related mouse sequence by one amino acid. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti- Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P). |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Mouse IgG2b |
| Form | Lyophilized |
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| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat |

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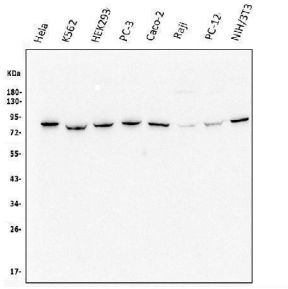
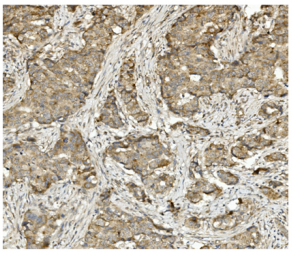
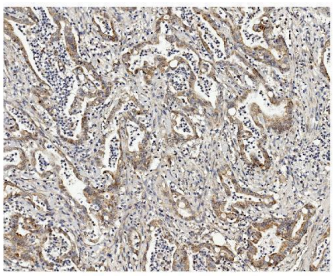
# Anti-Methylmalonyl Coenzyme A mutase Antibody Picoband® (monoclonal, 2D6) (M01065) Images




Western blot analysis of Methylmalonyl Coenzyme A using anti-Methylmalonyl Coenzyme A antibody (M01065). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates; Lane 2: human K562 whole cell lysates; Lane 3: human HEK293 whole cell lysates; Lane 4: human PC-3 whole cell lysates; Lane 5: human Caco-2 whole cell lysates; Lane 6: human Raji whole cell lysates; Lane 7: rat PC-12 whole cell lysates; Lane 8: mouse NIH/3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Methylmalonyl Coenzyme A antigen affinity purified monoclonal antibody (Catalog # M01065) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Methylmalonyl Coenzyme A at approximately 83KD. The expected band size for Methylmalonyl Coenzyme A is at 83KD.



IHC analysis of Methylmalonyl Coenzyme A using anti-Methylmalonyl Coenzyme A antibody (M01065). Methylmalonyl Coenzyme A was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Methylmalonyl Coenzyme A Antibody (M01065) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of Methylmalonyl Coenzyme A using anti-Methylmalonyl Coenzyme A antibody (M01065). Methylmalonyl Coenzyme A was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Methylmalonyl Coenzyme A Antibody (M01065) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed

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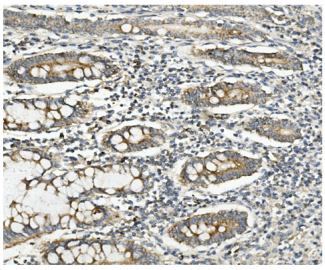
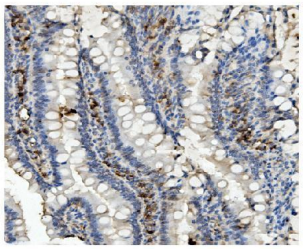
using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of Methylmalonyl Coenzyme A using anti-Methylmalonyl Coenzyme A antibody (M01065). Methylmalonyl Coenzyme A was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Methylmalonyl Coenzyme A Antibody (M01065) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IHC analysis of Methylmalonyl Coenzyme A using anti-Methylmalonyl Coenzyme A antibody (M01065). Methylmalonyl Coenzyme A was detected in paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Methylmalonyl Coenzyme A Antibody (M01065) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



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For Research Use Only. Not for use in diagnostic procedures.