abcam

Product datasheet

Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] - BSA and Azide free ab236068

KO VALIDATED Recombinant RabMAb

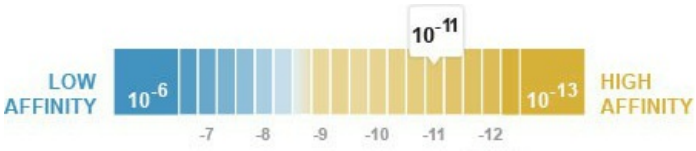
5 Images

Overview

Product name	Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] - BSA and Azide free
Description	Rabbit monoclonal [EPR7739] to Methylmalonyl Coenzyme A mutase - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human Methylmalonyl Coenzyme A mutase aa 550-650.
Positive control	WB: HAP1, HeLa and K562 cell lysates.
General notes	Ab236068 is the carrier-free version of ab133672. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. ab236068 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Dissociation constant (K_D)	$K_D = 9.40 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7739
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab236068** in the following tested applications.

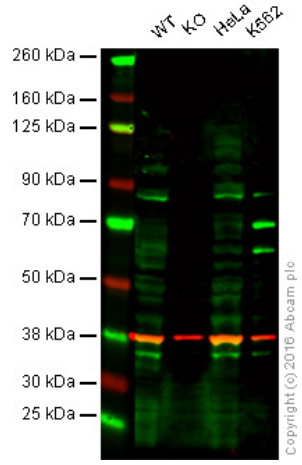
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 78 kDa (predicted molecular weight: 83 kDa).

Target

Function	Involved in the degradation of several amino acids, odd-chain fatty acids and cholesterol via propionyl-CoA to the tricarboxylic acid cycle. MCM has different functions in other species.
Involvement in disease	Defects in MUT are the cause of methylmalonic aciduria type mut (MMAM) [MIM:251000]. MMAM is an often fatal disorder of organic acid metabolism. Common clinical features include lethargy, vomiting, failure to thrive, hypotonia, neurological deficit and early death. Two forms of the disease are distinguished by the presence (mut-) or absence (mut0) of residual enzyme activity. Mut0 patients have more severe neurological manifestations of the disease than do MUT- patients. MMAM is unresponsive to vitamin B12 therapy.
Sequence similarities	Belongs to the methylmalonyl-CoA mutase family. Contains 1 B12-binding domain.
Cellular localization	Mitochondrion matrix.

Images



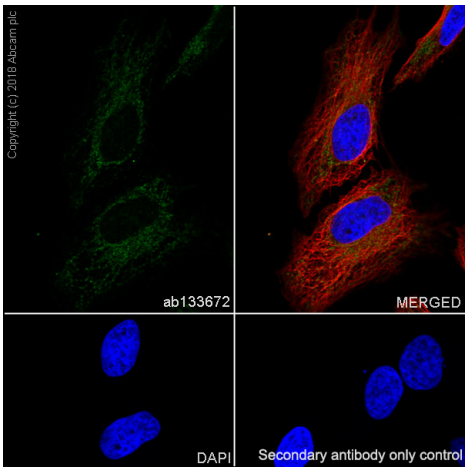
Western blot - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] - BSA and Azide free (ab236068)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Methylmalonyl Coenzyme A mutase knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: K562 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab133672 observed at 85 kDa. Red - loading control, ab8245, observed at 37 kDa.

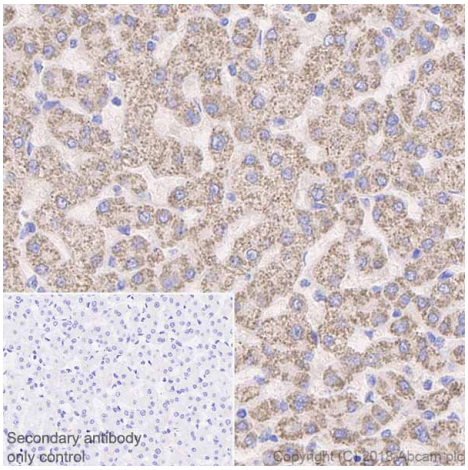
ab133672 was shown to specifically react with Methylmalonyl Coenzyme A mutase when Methylmalonyl Coenzyme A mutase knockout samples were used. Wild-type and Methylmalonyl Coenzyme A mutase knockout samples were subjected to SDS-PAGE. ab133672 and ab8245 (loading control to GAPDH) were diluted at 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133672).



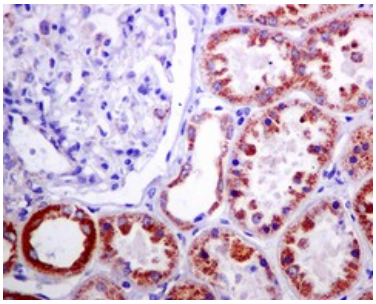
Immunocytochemistry/ Immunofluorescence - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] - BSA and Azide free (ab236068)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Methylmalonyl Coenzyme A mutase with Purified ab133672 at 1:100 dilution (9.9 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor®594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor®488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133672).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MethylmalonyI Coenzyme A mutase antibody [EPR7739] - BSA and Azide free (ab236068)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human liver tissue sections labeling MethylmalonyI Coenzyme A mutase with Purified ab133672 at 1:100 dilution (8.7 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0)Rabbit specific IHC polymer detection kit HRP/DAB (ab209101)was used as the secondary antibody.Negative control:PBS instead of the primary antibody.Hematoxylinwas used as a counterstain
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133672).

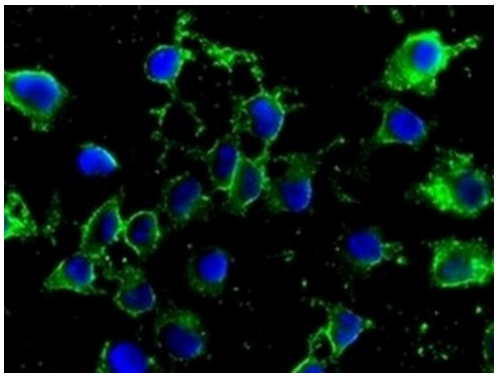


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MethylmalonyI Coenzyme A mutase antibody [EPR7739] - BSA and Azide free (ab236068)

Immunohistochemical analysis of paraffin embedded Human kidney tissue labelling MethylmalonyI Coenzyme A mutase with unpurified ab133672 at 1/50.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133672).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-MethylmalonyI Coenzyme A mutase antibody [EPR7739] - BSA and Azide free (ab236068)

Immunofluorescent staining of HeLa cells labelling MethylmalonyI Coenzyme A mutase with unpurified ab133672 at 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133672).

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