

Product datasheet

Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] ab133672

KO VALIDATED Recombinant RabMAB

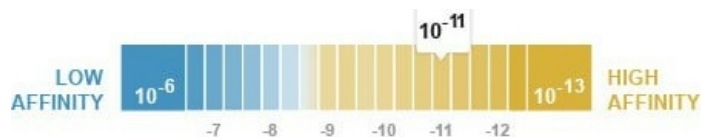
★★★★★ [1 Abreviews](#) [1 References](#) [9 Images](#)

Overview

Product name	Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739]
Description	Rabbit monoclonal [EPR7739] to Methylmalonyl Coenzyme A mutase
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	Suitable for: WB, IHC-P, ICC/IF Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Methylmalonyl Coenzyme A mutase aa 550-650. The exact sequence is proprietary. Database link: P22033
Positive control	WB: NIH 3T3, K562, 293T, HEK-293, PC-12, C6, mouse kidney, rat kidney, human fetal liver and HeLa cell lysates IHC-P: Human kidney and liver tissue ICC/IF: HeLa cells
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- 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 x 10 ⁻¹¹ M



[Learn more about \$K_D\$](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7739
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133672 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

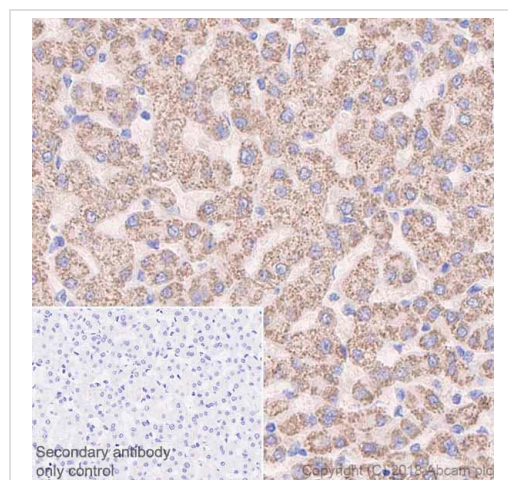
Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 78 kDa (predicted molecular weight: 83 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See IHC antigen retrieval protocols. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
ICC/IF		1/100 - 1/250.

Application notes Is unsuitable for Flow Cyt.

Target

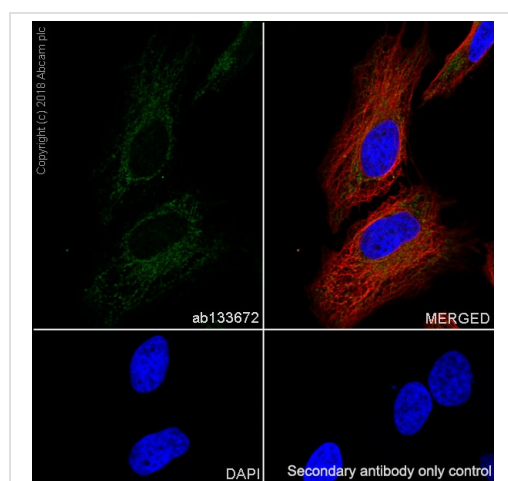
Function	Involved in the degradation of several amino acids, odd-chain fatty acids and cholesterol via propionyl-CoA to the tricarboxylic acid cycle. MCM has different functions in other species.
Involvement in disease	Defects in MUT are the cause of methylmalonic aciduria type mut (MMAM) [MIM:251000]. 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



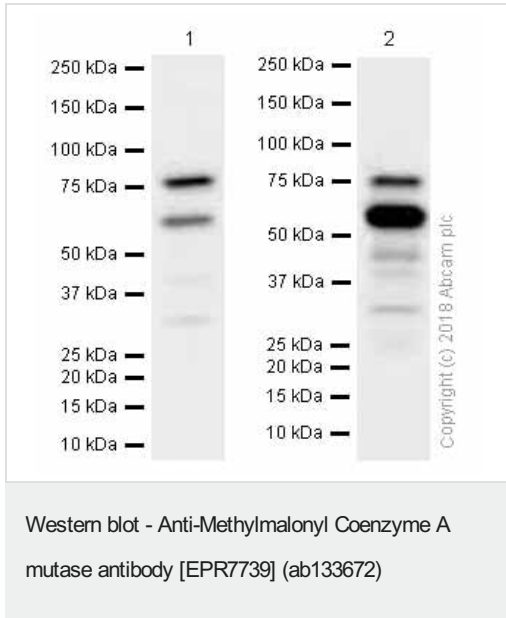
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human liver tissue sections labeling Methylmalonyl 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. Hematoxylin was used as a counterstain



Immunocytochemistry/ Immunofluorescence - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

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.



All lanes : Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672) at 0.9 µg/ml (purified)

Lane 1 : Mouse kidney lysates

Lane 2 : Rat kidney lysates

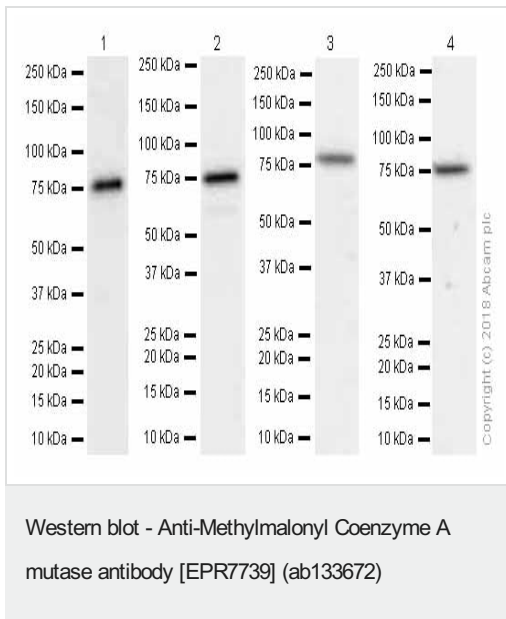
Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 83 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



All lanes : Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672) at 0.9 µg/ml (purified)

Lane 1 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates

Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

Lane 4 : C6 (Rat glial tumor glial cell) whole cell lysates

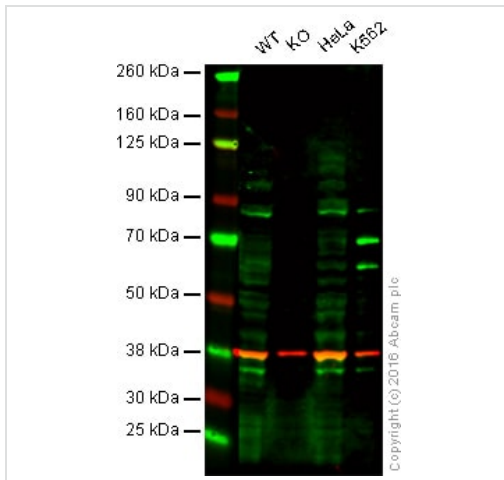
Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 83 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

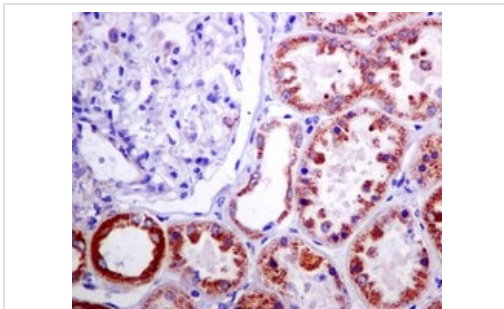
Lane 2: Methylmalonyl Coenzyme A mutase knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: K562 cell lysate (20 µg)

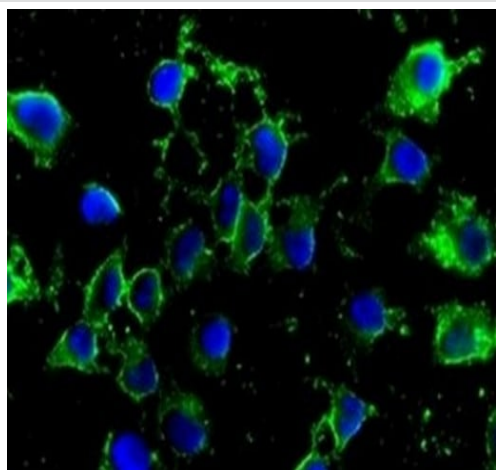
Lanes 1 - 4: Merged signal (red and green). Green - ab133672 observed at 85 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

Unpurified 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.



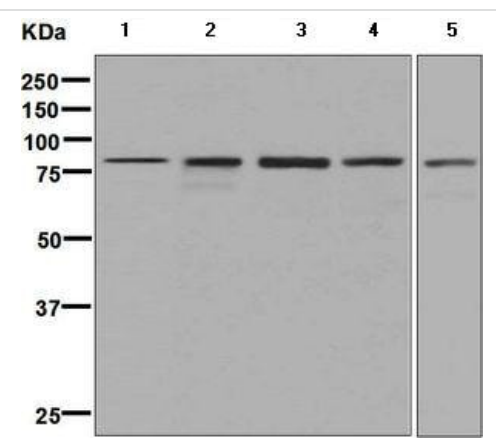
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

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



Immunocytochemistry/ Immunofluorescence - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

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



Western blot - Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672)

All lanes : Anti-Methylmalonyl Coenzyme A mutase antibody [EPR7739] (ab133672) at 1/1000 dilution (Unpurified)

Lane 1 : NIH 3T3 cell lysate

Lane 2 : K562 cell lysate

Lane 3 : 293T cell lysate

Lane 4 : HeLa cell lysate

Lane 5 : Human fetal liver lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

Predicted band size: 83 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Methylmalonyl Coenzyme A mutase antibody
[EPR7739] (ab133672)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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