
Product Name: KD-Validated Methylmalonyl-CoA mutase Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01216**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 83.1kDa

Antigen Information

Gene Name	MMUT
Alternative Names	MMUT; Methylmalonyl-CoA Mutase; MCM; MUT; Methylmalonyl-CoA Mutase, Mitochondrial; Methylmalonyl Coenzyme A Mutase; Methylmalonyl-CoA Isomerase; EC 5.4.99.2; Methylmalonyl-CoA Mutase Variant C.613_615delGAA; Methylmalonyl-CoA Mutase Variant C.1495G>A; Methylmalonyl-CoA Mutase Variant C.2011A>G; Methylmalonyl-CoA Mutase Variant C.2150G>T; Methylmalonyl-CoA Mutase Variant C.322C>T; Methylmalonyl-CoA Mutase Variant C.636G>A; Methylmalonyl-CoA Mutase Variant C.643G>A; Methylmalonyl-CoA Mutase C.*192delA; Methylmalonyl-CoA Mutase C.*51C>G; Mutant Methylmalonyl CoA Mutase
Gene ID	4594.0

SwissProt ID

P22033

Immunogen

A synthesized peptide derived from human MMUT

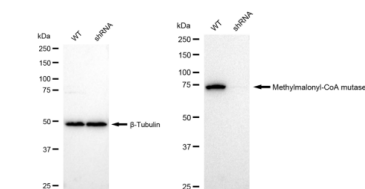
Background

This gene encodes the mitochondrial enzyme methylmalonyl Coenzyme A mutase. In humans, the product of this gene is a vitamin B12-dependent enzyme which catalyzes the isomerization of methylmalonyl-CoA to succinyl-CoA, while in other species this enzyme may have different functions. Mutations in this gene may lead to various types of methylmalonic aciduria. [provided by RefSeq, Jul 2008]

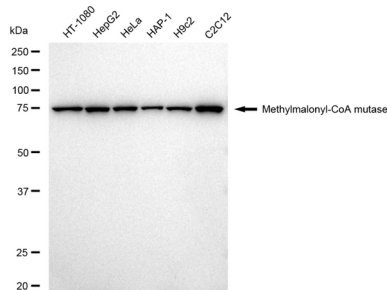
Research Area

Metabolism

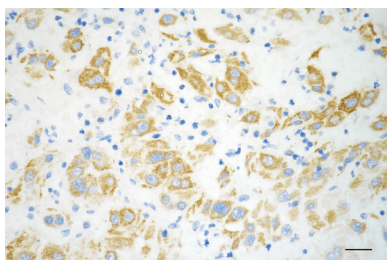
Image Data



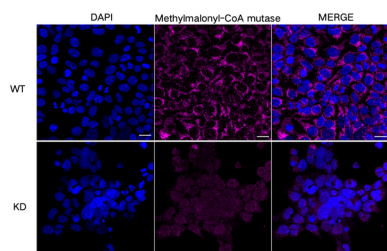
Western blotting analysis using Methylmalonyl-CoA mutase antibody (KVA01216). Methylmalonyl-CoA mutase expression in wild type (WT) and Methylmalonyl-CoA mutase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Methylmalonyl-CoA mutase antibody (KVA01216, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



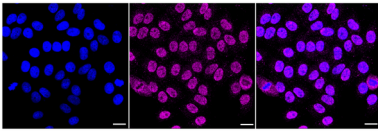
Western blotting analysis using Methylmalonyl-CoA mutase antibody (KVA01216). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Methylmalonyl-CoA mutase antibody (KVA01216, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



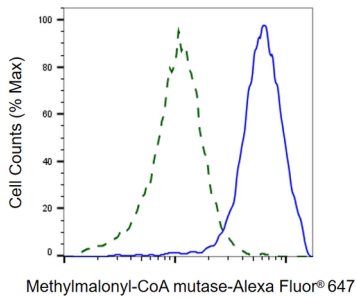
Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using methylmalonyl-CoA mutase antibody (KVA01216, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



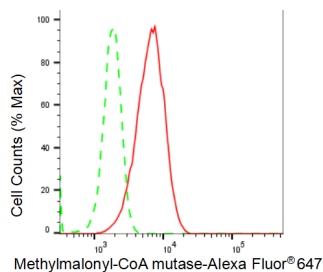
Immunocytochemical staining of HeLa cells using Methylmalonyl-CoA mutase antibody (KVA01216, 1:1,000). Top panel: wild-type (WT); Bottom panel: Methylmalonyl-CoA mutase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Methylmalonyl-CoA mutase was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with Methylmalonyl-CoA mutase antibody (KVAb01216, 1:1,000). Nuclei were stained blue with DAPI; Methylmalonyl-CoA mutase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Very Low. Scale bar: 20 μ m.



Validation of Methylmalonyl-CoA mutase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Methylmalonyl-CoA mutase antibody (KVAb01216, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Methylmalonyl-CoA mutase expression in HepG2 cells using Methylmalonyl-CoA mutase antibody (KVAb01216, 1:2,000). Green, isotype control; red, Methylmalonyl-CoA mutase.