
Product Name: KD-Validated Fumarate Hydratase Mouse Monoclonal Antibody**Catalog #: KVA00543**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse 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 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 54.6kDa

Antigen Information

Gene Name	FH
Alternative Names	FH; Fumarate Hydratase; Fumarase; Fumarate Hydratase, Mitochondrial; EC 4.2.1.2 HsFH; Epididymis Secretory Sperm Binding Protein; HLRCC; MCUL1; FMRD; LRCC; MCL
Gene ID	2271.0
SwissProt ID	P07954
Immunogen	Recombinant protein of human FH

Background

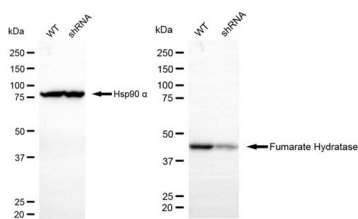
The protein encoded by this gene is an enzymatic component of the tricarboxylic acid (TCA) cycle, or Krebs cycle, and catalyzes the formation of L-malate from fumarate. It exists in both a cytosolic form and an N-terminal extended form, differing only in the translation start site used. The N-terminal extended form is targeted to the mitochondrion, where the removal of the

extension generates the same form as in the cytoplasm. It is similar to some thermostable class II fumarases and functions as a homotetramer. Mutations in this gene can cause fumarase deficiency and lead to progressive encephalopathy. [provided by RefSeq, Jul 2008]

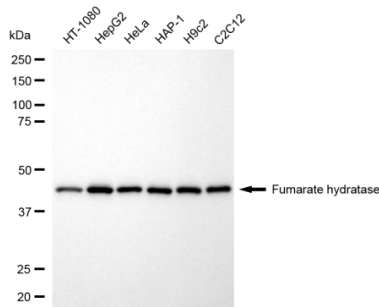
Research Area

Signal Transduction,Cancer,Metabolism

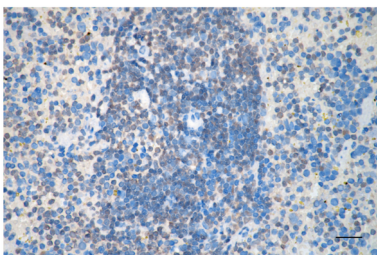
Image Data



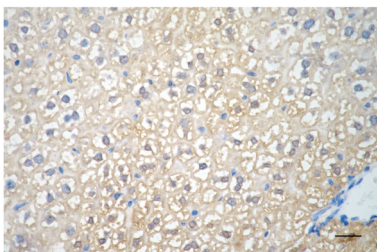
Western blotting analysis using fumarate hydratase antibody (KVA00543). Fumarate hydratase expression in wild-type (WT) and fumarate hydratase (FH) shRNA knockdown (KD) HeLa cells with 5 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with fumarate hydratase antibody (KVA00543, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:20,000) respectively.



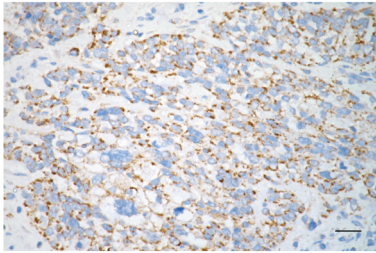
Western blotting analysis using fumarate hydratase antibody (KVA00543). Total cell lysates (5 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with fumarate hydratase antibody (KVA00543, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



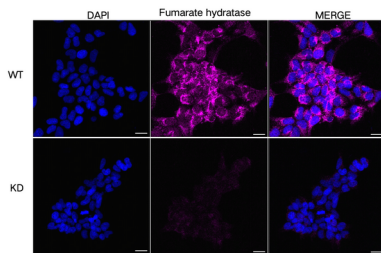
Immunohistochemistry was performed on paraffin-embedded mouse spleen using fumarate hydratase antibody (KVA00543, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



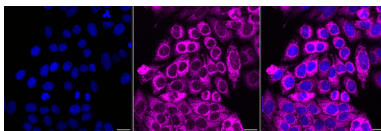
Immunohistochemistry was performed on paraffin-embedded mouse liver using fumarate hydratase antibody (KVA00543, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



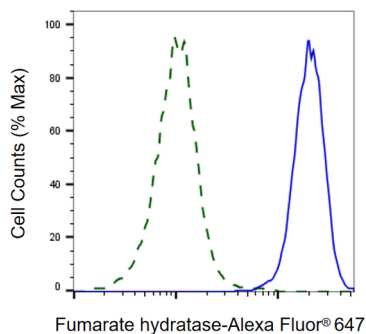
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using fumarate hydratase antibody (KVA00543, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



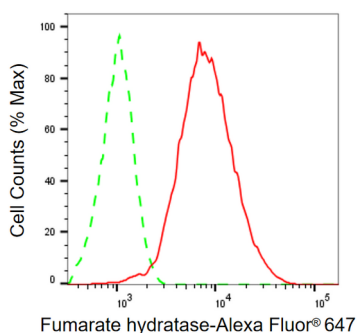
Immunocytochemical staining of HeLa cells using Fumarate hydratase antibody (KVA00543, 1:1,000), Top panel: wild-type (WT); Bottom panel: Fumarate hydratase shRNA knockdown (KD). Nuclei were stained blue with DAPI; F was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm.



Immunocytochemical staining of HepG2 cells with Fumarate hydratase associated protein antibody (KVA00543, 1:1,000). Nuclei were stained blue with DAPI; Fumarate hydratase associated protein was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20 μm.



Validation of Fumarate hydratase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Fumarate hydratase antibody (KVA00543, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Fumarate hydratase expression in HepG2 cells using Fumarate hydratase antibody (KVA00543, 1:2,000). Green, isotype control; red, Fumarate hydratase.