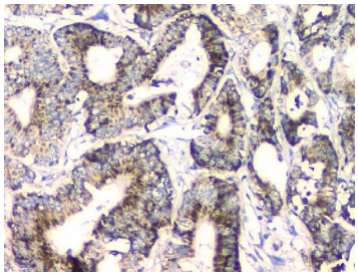
FH Antibody / Fumarate hydratase [clone 9D8] (RQ4634)

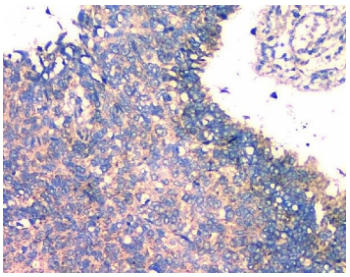
Catalog No.	Formulation	Size
RQ4634	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

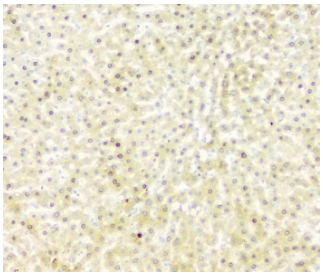
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	9D8
Purity	Protein G affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P07954
Localization	Cytoplasmic, mitochondrial
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This FH antibody is available for research use only.



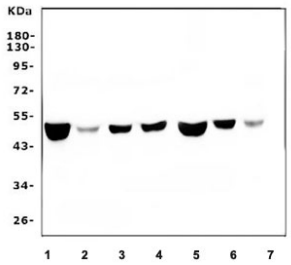
IHC staining of FFPE human intestinal cancer with FH antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



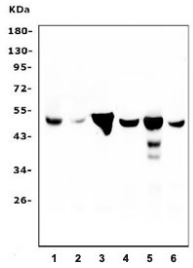
IHC staining of FFPE human lung cancer with FH antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE rat liver with FH antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human K562, 2) human placenta, 3) monkey COS-7 and human 4) HL60, 5) Caco-2, 6) U-2 OS and 7) A549 cell lysate with FH antibody. Predicted molecular weight: ~55/50 kDa (isoforms 1/2).



Western blot testing of rat 1) thymus, 2) testis, 3) stomach and mouse 4) testis, 5) kidney and 6) NIH 3T3 cell lysate with FH antibody. Predicted molecular weight: ~55/50 kDa (isoforms 1/2).

Description

Fumarase (or fumarate hydratase) is an enzyme that catalyzes the reversible hydration/dehydration of fumarate to malate. Fumarase comes in two forms: mitochondrial and cytosolic. The mitochondrial isoenzyme is involved in the Krebs Cycle (also known as the Tricarboxylic Acid Cycle [TCA] or the Citric Acid Cycle), and the cytosolic isoenzyme is involved in the metabolism of amino acids and fumarate. Subcellular localization is established by the presence of a signal sequence on the amino terminus in the mitochondrial form, while subcellular localization in the cytosolic form is established by the absence of the signal sequence found in the mitochondrial variety. This enzyme participates in 2 metabolic pathways: citric acid cycle, reductive citric acid cycle (CO2 fixation), and is also important in renal cell carcinoma. Mutations in this gene have been associated with the development of leiomyomas in the skin and uterus in combination with renal cell carcinoma.

Application Notes

Optimal dilution of the FH antibody should be determined by the researcher.

Immunogen

Amino acids YDKAAKIAKTAHKNGSTLKETAIELGYLTAEQFDEWVKPKDMLGPK were used as the immunogen for the FH antibody.

Storage

After reconstitution, the FH antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.