

Rabbit FH Polyclonal Antibody | anti-FH antibody

Phospho-FH (Thr90) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329964	Rabbit	Human, Mouse, Rat Predicted Reactivity: Bovine (88%), Horse (88%), Rabbit (88%), Dog (88%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

FH; Polyclonal Antibody; Phospho-FH (Thr90) Antibody; Fumarase; Fumarate hydratase; Fumarate hydratase mitochondrial; mitochondrial; FUMH_HUMAN; HLRCC; LRCC; MCL; MCUL 1; MCUL1; MS709; Multiple hereditary cutaneous leiomyomata; anti-FH antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Bovine (88%), Horse (88%), Rabbit (88%), Dog (88%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-FH (Thr90) Antibody detects endogenous levels of FH only when phosphorylated at T90. Tissue Specificity: Expressed in red blood cells; underexpressed in red blood cells (cytoplasm) of patients with hereditary non-spherocytic hemolytic anemia of unknown etiology.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-FH antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human FH around the phosphorylation site of T90.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation at Thr-236 by PRKDC in response to DNA damage promotes translocation to the nucleus and recruitment to DNA double-strand breaks (DSBs).
Subunit Structure	Homotetramer. Interacts with H2AZ1.
Similarity	Belongs to the class-II fumarase/aspartase family. Fumarase subfamily.
Subcellular Location	Mitochondrion. Cytoplasm>Cytosol. Nucleus. Chromosome. Note: Translocates to the nucleus in response to DNA damage: localizes to DNA double-strand breaks (DSBs) following phosphorylation by PRKDC.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)

At 1/100 staining Mouse colon tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from Hela, using Phospho-FH(T90) Antibody.



WB (Western Blot)

Western blot analysis of extracts from Hela cells, using Phospho-FH(Thr90) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-FH antibody

Catalyzes the reversible stereospecific interconversion of fumarate to L-malate. Experiments in other species have demonstrated that specific isoforms of this protein act in defined pathways and favor one direction over the other (Probable).Catalyzes the hydration of fumarate to L-malate in the tricarboxylic acid (TCA) cycle to facilitate a transition step in the production of energy in the form of NADH.Catalyzes the dehydration of L-malate to fumarate (By similarity). Fumarate metabolism in the cytosol plays a role during urea cycle and arginine metabolism; fumarate being a by-product of the urea cycle and amino-acid catabolism (By similarity). Also plays a role in DNA repair by promoting non-homologous end-joining (NHEJ). In response to DNA damage and phosphorylation by PRKDC, translocates to the nucleus and accumulates at DNA double-strand breaks (DSBs): acts by catalyzing formation of fumarate, an inhibitor ofKDM2B histone demethylase activity, resulting in enhanced dimethylation of histone H3 'Lys-36' (H3K36me2).
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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	19743875
NCBI GeneID	2271
NCBI Accession #	NP_000134.2
NCBI GenBank Nucleotide #	NM_000143.3
UniProt Accession #	P07954
Molecular Weight	54,637 Da
NCBI Official Full Name	fumarate hydratase, mitochondrial
NCBI Official Synonym Full Names	fumarate hydratase
NCBI Official Symbol	FH
NCBI Official Synonym Symbols	MCL; LRCC; HLRCC; MCUL1
NCBI Protein Information	fumarate hydratase, mitochondrial; fumarase
UniProt Protein Name	Fumarate hydratase, mitochondrial

UniProt Gene Name	FH
UniProt Synonym Gene Names	Fumarase
UniProt Entry Name	FUMH_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/fh-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329964>