10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FH Antibody (monoclonal) (M09)

Mouse monoclonal antibody raised against a full length recombinant FH.
Catalog # AT2045a

Product Information

Application	WB, IHC, E
Primary Accession	P07954
Other Accession	BC003108
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	3E8
Calculated MW	54637

Additional Information

Gene ID	2271
Other Names	Fumarate hydratase, mitochondrial, Fumarase, FH
Target/Specificity	FH (AAH03108, 33 a.a. ~ 510 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	FH Antibody (monoclonal) (M09) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

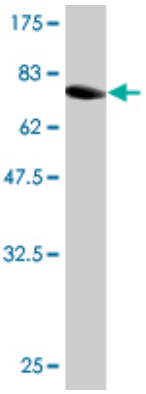
The protein encoded by this gene is an enzymatic component of the tricarboxylic acid (TCA) cycle, or Krebs cycle, and catalyzes the formation of L-malate from fumarate. It exists in both a cytosolic form and an N-terminal extended form, differing only in the translation start site used. The N-terminal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

References

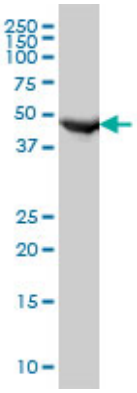
An approach based on a genome-wide association study reveals candidate loci for narcolepsy. Shimada M,

et al. Hum Genet, 2010 Oct. PMID 20677014.Fumarase: a mitochondrial metabolic enzyme and a cytosolic/nuclear component of the DNA damage response. Yogev O, et al. PLoS Biol, 2010 Mar 9. PMID 20231875.UOK 262 cell line, fumarate hydratase deficient (FH-/FH-) hereditary leiomyomatosis renal cell carcinoma: in vitro and in vivo model of an aberrant energy metabolic pathway in human cancer. Yang Y, et al. Cancer Genet Cytogenet, 2010 Jan 1. PMID 19963135.Follow-up examination of linkage and association to chromosome 1q43 in multiple sclerosis. McCauley JL, et al. Genes Immun, 2009 Oct. PMID 19626040.Novel role of fumarate metabolism in dahl-salt sensitive hypertension. Tian Z, et al. Hypertension, 2009 Aug. PMID 19546378.

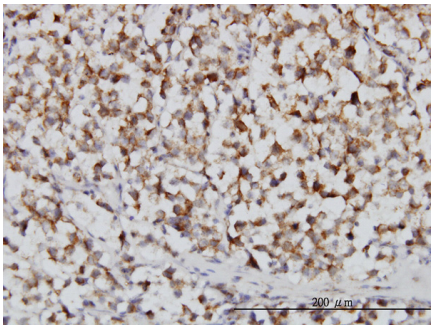
Images



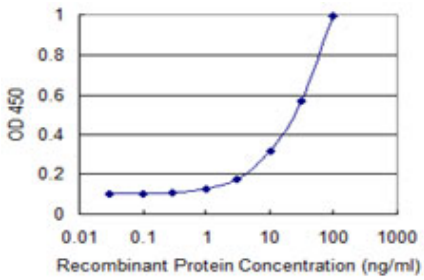
Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (78.32 KDa) .



FH monoclonal antibody (M09), clone 3E7 Western Blot analysis of FH expression in HeLa ((Cat # AT2045a)



Immunoperoxidase of monoclonal antibody to FH on formalin-fixed paraffin-embedded human seminoma. [antibody concentration 3 ug/ml]



Detection limit for recombinant GST tagged FH is 0.3 ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.