

Fumarase Active Protein | FH active protein

Fumarase, 44-510aa, Human, E Coli (Bioactivity Validated)

CATALOG # AAA48502	HOST E Coli	APPLICATIONS SDS-Page
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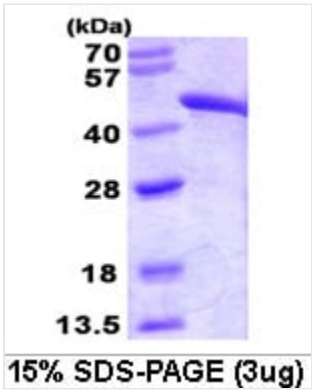
PRODUCT SYNONYMS

Fumarase; 44-510aa; Human; E Coli (Bioactivity Validated); Fumarate hydratase; FH; HLRCC; LRCC; MCL; MCuL1; Fumarate hydratase Fumarase; Fumarate hydratase mitochondrial; MCuL 1; Multiple hereditary cutaneous leiomyomata.; FH active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95% by SDS-PAGE
Form/Format	Liquid. In 20 mM Tris-HCl Buffer (pH 8.0)
Concentration	1 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MASQNSFRIE YDTFGELKVP NDKYYGAQTV RSTMNFKIGG VTERMPTPVI KAFGILKRAA AEVNQDYGLD PKIANAIMKA ADEVAEGKLN DHFPLVWQT GSGTQTNMNV NEVISNRAIE MLGGELGSKI PVHPNDHVNK SQSSNDTFPT AMHIAAAIEV HEVLLPGLQK LHDALDAKSK EFAQIIKIGR THTQDAVPLT LGQEFSGYVQ QVKYAMTRIK AAMPRIYELA AGGTAVGTGL NTRIGFAEKV AAKVAALTGL PFVTAPNKFE ALAAHDAIVE LSGAMNTTAC SLMKIANDIR FLGSGPRSGI GELILPENEP GSSIMPGKVN PTQCEAMTMV AAQVMGNHVA VTVGGSNGHF ELNVFKPMI KNLHSARLL GDASVSFTEN CVVGIQANTE RINKLMNESL MLVTALNPHI GYDKAAKIAK TAHKNGSTLK ETAIELGYLT AEQFDEWVKP KDMLGPK
Sequence Length	510
Applicable Applications for FH active protein	SDS-PAGE
Antigen Species	Human
Endotoxin Level	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Biological Activity	Specific activity is > 25 unit/mg, and is defined as the amount of enzyme that cleaves 1umole of L-Malate to Fumarate per minute at pH 7.5 at 37C.
Assay	1. Prepare a 180ul reaction mix into a suitable container: The concentrations are 90mM Potassium phosphate, 90 mM L-Malic acid. 2. Equilibrate to 37C and monitor at A260nm until the value is constant using a spectrophotometer. 3. Add 20ul of recombinant Fumarase protein 50ug/ml in assay buffer. 4. Mix by inversion and record the increase at A260nm for 5minutes. - L-Malate (Sigma-Aldrich. Cat. No, M-1000) - 96 well UV plate (Costar, Cat. No, 3635) - Plate reader (PerkinElmer, VICTORX3)
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for FH active protein	Fumarase (Fumarate hydratase) is an enzyme that catalyzes the reversible hydration/dehydration of fumarate to S-malate and is involved in the tricarboxylic acid (TCA), or Krebs cycle. This enzyme exists in both a cytosolic form and an N-terminal extended mitochondrial form. The N-terminal extended form is targeted to the mitochondrion, where the removal of the extension is the same form as in the cytoplasm. Fumarase deficiency can lead to progressive encephalopathy, cerebral atrophy and developmental delay and this enzyme also is thought to act as a tumor suppressor. Recombinant Fumarase was expressed in E Coli and was purified by conventional chromatography techniques.
Product Categories/Family for FH active protein	Cell Cycle
References	Lehtonen R., et al. (2003) J. Med. Genet. 40 (3): e19.; Toro JR., et al. (2003) Am. J. Hum. Genet. 73 (1): 95-106.;

NCBI AND UNIPROT INFORMATION

NCBI GI #	19743875
NCBI GeneID	2271
NCBI Accession #	NP_000134
NCBI GenBank Nucleotide #	NM_000143.3
UniProt Accession #	P07954; B1ANK7
Molecular Weight	50.2kDa (467aa), confirmed by MALDI-TOF.
NCBI Official Full Name	fumarate hydratase, mitochondrial
NCBI Official Synonym Full Names	fumarate hydratase
NCBI Official Symbol	FH
NCBI Official Synonym Symbols	MCL; FMRD; LRCC; HLRCC; MCUL1
NCBI Protein Information	fumarate hydratase, mitochondrial
UniProt Protein Name	Fumarate hydratase, mitochondrial
UniProt Gene Name	FH
UniProt Synonym Gene Names	Fumarase

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.

