Fumarate Hydratase/FH Protein, Human (His)

Cat. No.:	HY-P73062
Synonyms:	Fumarate Hydratase; Fumarase; HsFH; FH
Species:	Human
Source:	E. coli
Accession:	P07954-1 (A45-K510)
Gene ID:	2271
Molecular Weight:	Approximately 50 kDa

PROPERTIES

AA Sequence	A S Q N S F R I E Y D T F G E L K V P N D K Y Y G A Q T V R S T M N F K I G G V T E R M P T P V I K A F G I L K R A A A E V N Q D Y G L D P K I A N A I M K A A D E V A E G K L N D H F P L V V W Q T G S G T Q T N M N V N E V I S N R A I E M L G G E L G S K I P V H P N D H V N K S Q S S N D T F P T A M H I A A A I E V H E V L L P G L Q K L H D A L D A K S K E F A Q I I K I G R T H T Q D A V P L T L G Q E F S G Y V Q Q V K Y A M T R I K A A M P R I Y E L A A G G T A V G T G L N T R I G F A E K V A A K V A A L T G L P F V T A P N K F E A L A A H D A L V E L S G A M N T T A C S L M K I A N D I R F L G S G P R S G L G E L I L P E N E P G S S I M P G K V N P T Q C E A M T M V A A Q V M G N H V A V T V G G S N G H F E L N V F K P M M I K N V L H S A R L L G D A S V S F T E N C V V G I Q A N T E R I N K L M N E S L M L V T A L N P H I G Y D K A A K I A K T A H K N G S T L K E T A I E L G Y L T A E Q F D E W V K P K D M L G P K
Biological Activity	Measured by its ability to transform 1 umole of Fumarate to L-malate per minute at pH 7.5 at 37°C. Specific activity is 22.89 U/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 10 mM Tris, 5 mM EDTA, 1 mM DTT, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Fumarate Hydratase (FH) is an enzyme that catalyzes the reversible conversion of fumarate to L-malate. This stereospecific interconversion plays a pivotal role in the tricarboxylic acid (TCA) cycle, a central metabolic pathway involved in energy production. Specifically, FH facilitates the hydration of fumarate to L-malate, contributing to a key transition step in the TCA cycle. Experiments in various species suggest that specific isoforms of FH may act in defined pathways and exhibit preferences for one direction of the reaction over the other. By participating in the TCA cycle, FH ensures the efficient generation of energy in the form of NADH, highlighting its essential role in cellular metabolism.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA