Recombinant Human Fumarase/FH Protein (His Tag)

Catalog No. PKSH030901

Note: Centrifuge before opening to ensure complete recovery of vial contents.

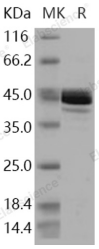
Description

Synonyms	Fumarate Hydratase Mitochondrial;Fumarase;FH;FMRD;HLRCC;LRCC;MCL;MCUL1
Species	Human
Expression Host	E.coli
Sequence	Ala 45-Lys 510
Accession	P07954-1
Calculated Molecular Weight	52.0 kDa
Observed molecular weight	45 kDa
Tag	C-His
Bioactivity	Measured by its ability to transform 1μmole of Fumarate to L-malate per minute at pH 7.5 at 37°C. Specific activity is > 25 unit/mg.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 10mM Tris, 5mM EDTA, 1mM DTT, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Fumarate Hydratase (FH) 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. Fumarate Hydratase 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. Individuals with hemizygous germline fumarate hydratase (FH) mutations are predisposed to renal cancer. These tumors predominantly exhibit functional inactivation of the remaining wild-type allele, implicating FH inactivation as a tumor-promoting event.

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