



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Fumarate Hydratase

Catalog No.
228-10500

Source
Escherichia Coli

Synonyms

MCL, LRCC, HLRCC, MCUL1, FH, Fumarate hydratase, Fumarase.

Introduction

Fumarase is an enzymatic factor of Krebs cycle, which catalyzes the formation of L-malate from fumarate. Fumarase 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 aimed to the mitochondrion, where the removal of the extension results in the same form as in the cytoplasm. Fumarase is similar to a number of thermostable Class-2 fumarases and functions as a homotetramer. Mutations in the Fumarase gene causes fumarase deficiency and leads to progressive encephalopathy, cerebral atrophy and developmental delay. Fumarase enzyme is also thought to act as a tumor suppressor. Leydig cell tumors are caused by Fumarase mutations and represents one of the first reports of germline mutations in any type of adult testicular tumor.

Description

Fumarase Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 467 amino acids (44-510) and having a molecular mass of 50.2 kDa. Fumarate Hydratase is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Formulation

The Fumarase protein solution (1mg/ml) contains 20mM Tris-HCl, pH-8.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Amino Acid Sequence

MASQNSFRIE	YDTFGELKVP	NDKYYGAQTV	RSTMNFKIGG	VTERMPTPVI
KAFGILKRAA	AEVNQDYGLD	PKIANAIMKA	ADEVAEGKLN	DHFPLVVWQT
GSGTQTNMNV	NEVISNRAIE	MLGGELGSKI	PVHPNDHVNK	SQSSNDTFPT
AMHIAAAIEV	HEVLLPGLQK	LHDALDAKSK	EFAQIIKIGR	THTQDAVPLT
LGQEFSGYVQ	QVKYAMTRIK	AAMPRIYELA	AGGTAVGTGL	NTRIGFAEKV
AAKVAALTGL	PFVTAPNKFE	ALAAHDALVE	LSGAMNTTAC	SLMKIANDIR
FLGSGPRSGL	GELILPENEP	GSSIMPGKVN	PTQCEAMTMV	AAQVMGNHVA
VTVGGSNGHF	ELNVFKPMMI	KNVLHSARLL	GDASVSFTEN	CVVGIQANTE
RINKLMNESL	MLVTALNPHI	GYDKAAKIAK	TAHKNGSTLK	ETAIELGYLT
AEQFDEWVKP	KDMLGPK.			

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