

Recombinant human COX5B protein

Catalog Number: ATGP2156

PRODUCT INFORMATION

Expression system

E.coli

Domain

32-129aa

UniProt No.

P10606

NCBI Accession No.

NP_001853

Alternative Names

Cytochrome c oxidase subunit 5B mitochondrial precursor, Cytochrome c oxidase subunit 5B, mitochondrial precursor, COXVB

PRODUCT SPECIFICATION

Molecular Weight

13 kDa (121aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol, 1mM DTT

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Cytochrome c oxidase subunit 5B, also known as COX5B, is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. Two isoforms of COX5 exist, COX5a and COX5b. When oxygen levels within the cell are high, transcription of COX5A (the aerobic isoform) is up-regulated as the rate of cellular respiration increases.

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Conversely, when oxygen levels are low, COX5B (the hypoxic isoform) transcription increases and functions to maximize the turnover rate of the COX apoenzyme. Recombinant human COX5B protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

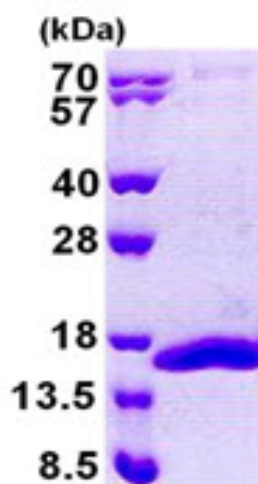
MGSSHHHHHHH SSGLVPRGSH MGSASGGGVP TDEEQATGLE REIMLAAKKG LDPYNVLAPK GASGTREDPN LVPSISNKRI
VGCICEEDNT SVVWFVWLHKG EAQRCPRCGA HYKLVPQQLA H

General References

Bueke P V., et al. (1998) *J Exp Biol.* 201:1163-1175.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)