

COX5B, 32-129aa, Human, His tag, E.coli

Cat.NO.: TP01695

3th Edition

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

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. 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.

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

Molecular Weight:13 kDa (121aa), confirmed by MALDI-TOF (Molecular size on SDS-PAGE will appear higher)

Sequences:

MGSSHHHHHSSGLVPRGSHMGSASGGGVPTDEEQATGLEREIMLAACKGLDPYNVLAPKLGASGTREDPNLVPS
ISNKRIVGCICEEDNTSVVFWLHKGEAQRCPRCGAHYKLVPQQLAH

Purity:> 95% by HPLC

Concentration:0.5mg/ml (determined by Bradford assay)

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.