Recombinant Human COX17 (S. cerevisiae)

Cat. No. COX17-448H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human full length recombinant Cox17 (Cytochrome C oxidase assembly protein) cloned from Human cDNA was expressed in*E.coli*. It consists of the full length apo-Human Cox172S-S with the addition of an GSFT N-terminal sequence. MW = 7.3 kDa.
Species	Human
Source	E.coli
Description	Cytochrome c oxidase copper chaperone is an enzyme that in humans is encoded by the COX17 gene. Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes a protein which is not a structural subunit, but may be involved in the recruitment of copper to mitochondria for incorporation into the COX apoenzyme. This protein shares 92% amino acid sequence identity with mouse and rat Cox17 proteins. This gene is no longer considered to be a candidate gene for COX deficiency. A pseudogene COX17P has been found on chromosome 13.
Purity	> 95% by SDS-PAGE. The protein was observed as a single band. Cysteine alkilation

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	with AMS monitored by MALDI-TOF show that the protein is obtained in the 2S-S form while the cysteines of the binding site are reduced.
Supplied As	1.0mg at 1.0mg/ml in 50mM KH2PO4/K2HPO4 pH7, 1mM DTT (Dithiothreitol). The concentration is estimated by Bradford assay.
Characteristics	Under the above described conditions, to avoid precipitation or protein dimerization, the product can be concentrated to a maximum of 1mM.
Storage	-20°C. The protein is stable at 4°C for at least 2 weeks and at 25°C for at least several hours. After initial defrost, aliquot protein into individual tubes and refreeze at -20°C. Avoid repeated freeze/defrost cycles.
Full Length	Full L.

GENE INFORMATION

Gene Name	COX17 COX17 cytochrome c oxidase assembly homolog (S. cerevisiae) [Homo sapiens]
Synonyms	COX17; COX17 cytochrome c oxidase assembly homolog (S. cerevisiae); X17 homolog, cytochrome c oxidase assembly protein; COX17 (yeast) homolog, cytochrome c oxidase assembly protein; COX17 homolog, cytochrome c oxidase assembly protein (yeast); COX17 homolog, cytochrome c oxidase assembly protein (S. cerevisiae); COX17 homolog, cytochrome c oxidase assembly protein; Cytochrome c oxidase copper chaperone; human homolog of yeast mitochondrial copper recruitment MGC104397; MGC117386
Gene ID	1006
mRNA Refseq	NM_005694

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Protein Refseq	NP_005685
MIM	604813
UniProt ID	Q14061
Chromosome Location	3q13.33
Pathway	Metabolic pathways; Oxidative phosphorylation
Function	copper chaperone activity; metal ion bindin

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