

Recombinant human CCS protein

Catalog Number: ATGP0715

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-274aa

UniProt No.

O14618

NCBI Accession No.

NP_005116

Alternative Names

Copper chaperone for superoxide dismutase

PRODUCT SPECIFICATION

Molecular Weight

31.2 kDa (294aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl 1mM DTT, 10% glycerol

Purity

> 90% 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

CCS is essential for the incorporation of copper into SOD-1, and therefore is necessary for its enzymatic activity. CCS prevents copper ions from binding to intracellular copper scavengers and provides the SOD-1 enzyme with the necessary copper cofactor. CCS escorts copper only to SOD-1 and fails to deliver copper to proteins in the mitochondria, nucleus or secretory pathway. While many tissues express CCS, the chaperone is most abundant in the kidney, liver and Purkinje cells in the neuropil of the central nervous system. Recombinant human CCS protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional

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chromatography techniques.

Amino acid Sequence

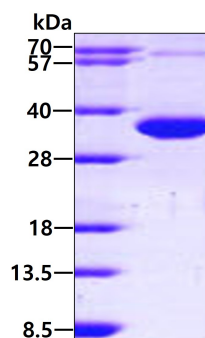
<MGSSHHHHHH SSGLVPRGSH> MASDSGNQGT LCTLEFAVQM TCQSCVDAVR KSLQGVAGVQ DVEVHLEDQM
VLVHTTLP SQ EVQALLEG TG RQAVLKGMGS GQLQNLGAAV AILGGPGTVQ GVVRFLLQTP ERCLIEGTID GLEPGLHGLH
VHQYGDLTNN CNSCGNHFNP DGASHGGPQD SDRHRGDLGN VRADADGRAI FRMEDEQLKV WDVIGRSLII
DEGEDDLGRG GHPLSKITGN SGERLACGII ARSAGLFQNP KQICSCDGLT IWEERGRPIA GKGRKESAQP PAHL

General References

Romerius P., et al. (2010) Clin Cancer Res. 16(15):3843-50.
Seetharaman SV., et al. (2010) Biochemistry. 49(27):5714-25.

DATA

SDS-PAGE



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