

Recombinant Human CCS protein, His-tagged

Cat. No. CCS-1053H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CCS protein(Gln23~Gln269), fused with N-terminal His tag, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Gln23~Gln269
Form	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Bio-activity	Superoxide dismutase copper chaperone (SOD4) is an enzyme that in humans is encoded by the CCS gene. This gene encodes a member of the superoxide dismutase (SOD) protein family. SODs are antioxidant enzymes that catalyze the dismutation of two superoxide radicals into hydrogen peroxide and oxygen. According to the report, in a weakly alkaline buffer solution (pH=8.2) with N-tris(hydroxymethyl) amino methane-HCL, pyrogallol can occur autoxidation in the air, then SOD can inhibit this reaction. Thus, we use this way to measure the activity of recombinant human SOD4. The reaction was performed in adding 5 µl 5 mmol/L pyrogallol to 200 µl 50mmol/L Tris-HCl, rapidly mixing at 25°C, then read at 325 nm (using 50 mmol/L Tris-HCl as blank control) in kinetic mode for 3 minutes using a microplate reader controlling the pyrogallol autoxidation rate at 0.70 OD/min. Different concentrations of recombinant human SOD4 were added into 200 µl 50 mmol/L Tris-HCl, incubated for 20min at 25°C, then adding 5 µl 5 mmol/L pyrogallol to each well, rapidly mixing and

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read at 325 nm in kinetic mode for 3 minutes. Under these conditions, the enzyme amount of 50% inhibition of pyrogallol autooxidation per minute is defined as a unit. The specific activity of recombinant human SOD4 is 97 U/mg.

Molecular Mass	29.9kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>95%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	CCS copper chaperone for superoxide dismutase [Homo sapiens]
Official Symbol	CCS
Synonyms	CCS; copper chaperone for superoxide dismutase; superoxide dismutase copper chaperone; MGC138260
Gene ID	9973
mRNA Refseq	NM_005125
Protein Refseq	NP_005116

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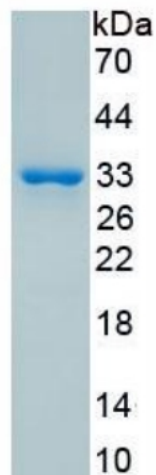
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