# Recombinant Human SOD1 Protein

**Cat. No.** SOD1-1037H **Lot. No.** (See product label)

## SPECIFICATION

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|---|---|
| **Product Overview** | Recombinant Human SOD1(1-154aa) was expressed in E. coli. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | 1-154aa |
| **Description** | Superoxide dismutase (SOD) is an antioxidant enzyme involved in the defense system against reactive oxygen species (ROS). SOD catalyzes the dismutation reaction of superoxide radical anion (O2-) to hydrogen peroxide, which is then catalyzed to innocuous O2 and H2O by glutathione peroxidase and catalase. Several classes of SOD have been identified. These include intracellular copper, zinc SOD (Cu, Zn-SOD/SOD-1), mitochondrial manganese SOD (Mn-SOD/SOD-2) and extracellular Cu, Zn-SOD (EC-SOD/SOD-3). SOD-1 is found in all eukaryotic species as a homodimeric 32-kDa enzyme containing one each of Cu and Zn ion per subunit. The manganese containing 80-kDa tetrameric enzyme SOD2, is located in the mitochondrial matrix in close proximity to a primary endogenous source of superoxide, the mitochondrial respiratory chain. SOD-3 is a heparin-binding multimer of disulfide-linked dimers, primarily expressed in human lungs, vessel walls and airways (4). SOD-4 is a copper chaperone for superoxide dismutase (CCS), which specifically delivers Cu to copper/zinc superoxide dismutase. CCS may activate copper/zinc superoxide dismutase through direct insertion of the Cu cofactor. |

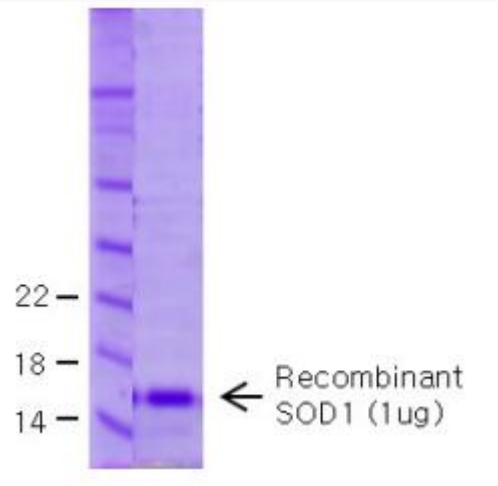
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| **Form** | Lyophilized from 20mM HEPES, 150mM NaCl, 1mM EDTA, pH 7.5 |
| **Molecular Mass** | 16 kDa |
| **Purity** | > 95% by SDS-PAGE |
| **Storage** | Shipped at 4 centigrade. Store at -20 centigrade. After reconstitution, store at -80 centigrade and avoid frequent freeze and thaw. |
| **Concentration** | 1 mg/ml |

## GENE INFORMATION

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| **Gene Name** | SOD1 superoxide dismutase 1, soluble [ Homo sapiens ] |
| **Official Symbol** | SOD1 |
| **Synonyms** | SOD1; superoxide dismutase 1, soluble; ALS, ALS1, amyotrophic lateral sclerosis 1 (adult); superoxide dismutase [Cu-Zn]; IPOA; SOD, soluble; indophenoloxidase A; Cu/Zn superoxide dismutase; superoxide dismutase, cystolic; ALS; SOD; ALS1; hSod1; homodimer; |
| **Gene ID** | 6647 |
| **mRNA Refseq** | NM_000454 |
| **Protein Refseq** | NP_000445 |
| **MIM** | 147450 |
| **UniProt ID** | P00441 |

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