

## Recombinant Human Superoxide Dismutase 1 (SOD1) Protein

### Source

- **Species** Human
- **Gene Symbols** SOD1
- **Accession Number** P00441
- **Expressed Region** Ala2-Gln154
- **Synonyms** Superoxide dismutase [Cu-Zn], hSod1, Superoxide dismutase 1.

### Preparation

- **Expression System** Human embryonic kidney 293 (HEK293) cells
- **Tag** N-terminal 8x histidine tag
- **Purification** His-tag affinity purification by immobilized metal ion affinity chromatography (IMAC)
- **Purity** >95%
- **Endotoxin Level** <0.5 EU per µg of the protein as determined by the LAL method
- **Purity determined** By SDS-PAGE under reducing conditions and visualized by Coomassie blue staining
- **Molecular Weight** The recombinant protein product has a calculated molecular mass of ~18 kDa. Due to the abundant glycosylation, it migrates as two major protein bands (18 kDa and 25 kDa) in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions. After deglycosylation under native and denature conditions, the protein presented as one ~18 kDa band. See deglycosylation analysis image below.

### Protein Specifications

- **Format** Lyophilized powder
- **Formulation** Lyophilized from a 0.2 µm filtered solution in PBS (pH 7.4)
- **Concentration** Determined by BCA protein assay
- **SDS-PAGE Image**

Figure 1. Deglycosylation analysis of purified recombinant proteins. The same amount of purified proteins were untreated (Lane 2) or treated with protein deglycosylation enzymes under native (Lane 3) or reducing (Lane 4) conditions. Deglycosylation treatment resulted in a mobility shift of the protein to produce one reduced band at the expected size (~70 kDa), thus indicating that the untreated recombinant protein (Lane 2, ~80 kDa) was glycosylated.

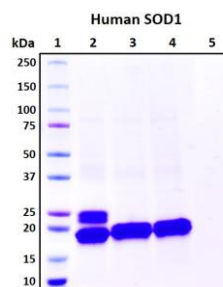
Lane 1: Protein standard ladder (kDa)

Lane 2: Untreated protein

Lane 3: Treated protein with deglycosylation enzymes under native conditions.

Lane 4: Treated protein with deglycosylation enzymes under denature conditions.

Lane 5: Deglycosylation enzymes only without target proteins.



### Shipping

The product is shipped with ice packs

### Storage/Stability

Upon arrival, the lyophilized protein may be stored for 2 weeks at 4°C. For long term storage, it is recommended to store desiccated below -20°C in a manual defrost freezer. Following reconstitution, the protein may be stored for 2 weeks under sterile conditions at -20°C. For long term storage, it is recommended to make appropriate aliquots and store at -80°C. Avoid repeated freeze-thaw cycles.

This product is furnished for **LABORATORY RESEARCH USE ONLY**.  
Not for diagnostic or therapeutic use.