



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Mn SOD Protein

Human Recombinant Mn SOD Protein  
Catalog No. SPR-131



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

Mn SOD Protein

### Description

Human Recombinant Mn SOD Protein

### Applications

WB, SDS-PAGE

### Concentration

0.5 mg/ml

### Conjugates

His tag

### Nature

Recombinant

### Species

Human

### Expression System

E. coli

### Amino Acid Sequence

MLSRVAVCGTSRQLAPVLGVLGSRQKHSLPDLPLYDYGALPHINAQIMQLHHSKHHAAYVNNLNVTSEKYQEALAKGDVTAQIALQPALKFNGGGHINHSI  
FWTNLSPNGGGEPKGELLEAIKRDFGSFDKFKELTAASVGVQGSWGWLGFNKERGHLQIAACPNQDPLQGTGLIPLLGDVWEHAYYLQYKNVRPD

## Properties

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### Storage Buffer

50mM Tris/HCl pH7.7, 0.15M NaCl, 5mM DTT, 10% glycerol

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

Affinity Purified

### Specificity

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~25 kDa

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### Cite This Product

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Human Recombinant Mn SOD Protein (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPR-131)

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### Certificate Of Analysis

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This product has been certified >90% pure using SDS-PAGE analysis.

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## Biological Description

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### Alternative Names

Manganese SOD Protein, IPO B Protein, Mn SOD Protein, SOD2 Protein, Superoxide Dismutase (Mn) mitochondrial protein

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### Research Areas

Cancer, Cell Signaling, Chaperones, Oxidative Stress, Trafficking

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### Cellular Localization

Mitochondrion Matrix

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### Accession Number

BC070913

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### Gene ID

24787

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### Swiss Prot

P04179

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### Scientific Background

Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body (3). It works by catalyzing the dismutation of the superoxide radical  $O_2^-$  to  $O_2$  and  $H_2O_2$ , which are then metabolized to  $H_2O$  and  $O_2$  by catalase and glutathione peroxidase (2, 5). In general, SODs play a major role in antioxidant defense mechanisms (4). There are two main types of SOD in mammalian cells. One form (SOD1) contains Cu and Zn ions as a homodimer and exists in the cytoplasm. The two subunits of 16 kDa each are linked by two cysteines forming an intra-subunit disulphide bridge (3). The second form (SOD2) is a manganese containing enzyme and resides in the mitochondrial matrix. It is a homotetramer of 80 kDa. The third form (SOD3 or EC-SOD) is like SOD1 in that it contains Cu and Zn ions, however it is distinct in that it is a homotetramer, with a mass of 30 kDa and it exists only in the extracellular space(8). SOD3 can also be distinguished by its heparin-binding capacity (1).

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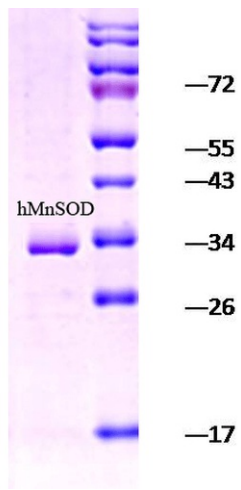
### References

1. Adachi T., et al. (1992) Clin. Chim. Acta. 212: 89-102.
  2. Barrister J.V., et al. (1987) Crit. Rev. Biochem. 22: 111-180.
  3. Furukawa Y., and O'Halloran T. (2006) Antioxidants & Redox Signaling. 8 (No 5): 6.
  4. Gao B., et al. (2003). Am J Physiol Lung Cell Mol Physiol. 284: L917-L925.
  5. Hassan H.M. (1988). Free Radical Biol. Med. 5: 377-385.
  6. Kurobe N., et al. (1990) Clinica Chimica Acta. 192: 171-180.
  7. Ojika T., et al. (1991) Acta Histochem Cytochem. 24(50): 489-495.
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## Product Images

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SDS-PAGE of 25kDa human Mn SOD (SPR-131).



## Product Citations (0)

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Currently there are no citations for this product.

## Reviews

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There are no reviews yet.