

**Anti-SOD1 Antibody**  
Catalog # ABO10670**Specification**

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**Anti-SOD1 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P00441</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Superoxide dismutase[Cu-Zn](SOD1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-SOD1 Antibody - Additional Information**

**Gene ID** 6647

**Other Names**

Superoxide dismutase [Cu-Zn], 1.15.1.1, Superoxide dismutase 1, hSod1, SOD1

**Calculated MW**

15936 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat  
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Mouse, Rat, Human  
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

**Subcellular Localization**

Cytoplasm. Nucleus. Predominantly cytoplasmic; the pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

**Protein Name**

Superoxide dismutase[Cu-Zn]

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg Na<sub>3</sub>N.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of Human SOD1 (113-129aa IIGRTL~~V~~VHEKADDLGK), different from the mouse sequence by two amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the Cu-Zn superoxide dismutase family.

**Anti-SOD1 Antibody - Protein Information**

Name SOD1 ([HGNC:11179](#))

**Function**

Destroys radicals which are normally produced within the cells and which are toxic to biological systems.

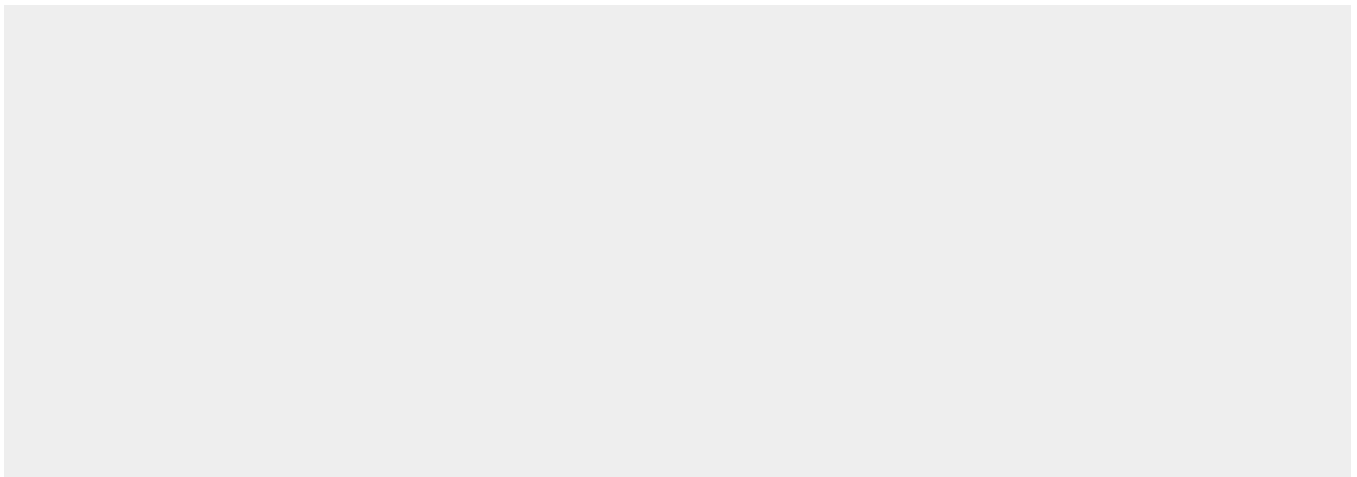
**Cellular Location**

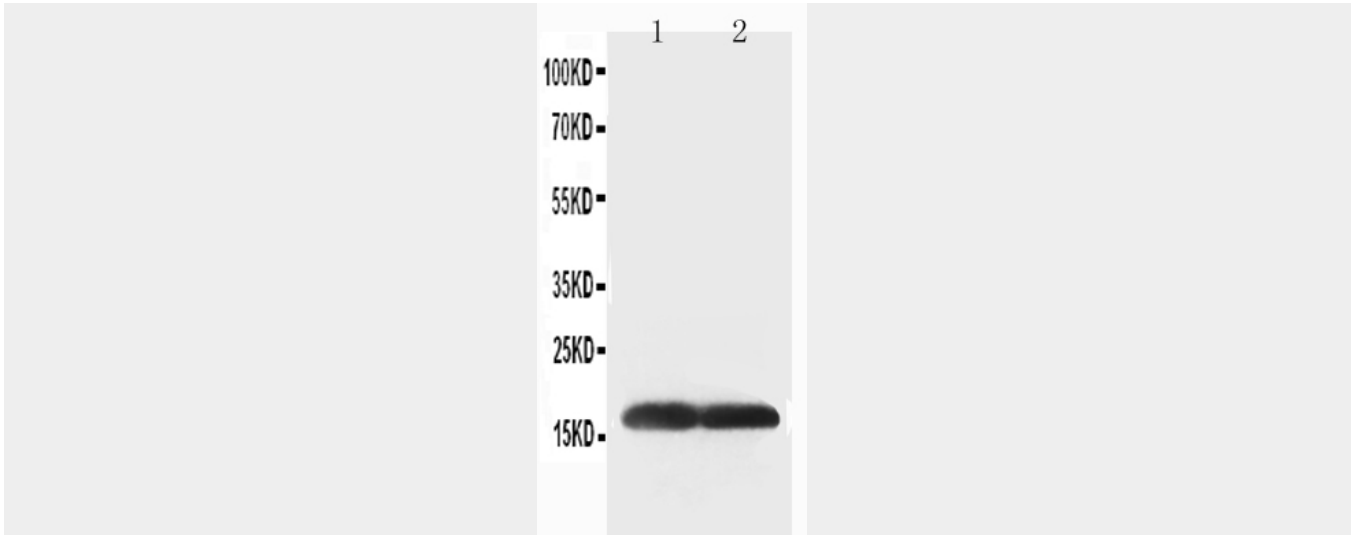
Cytoplasm. Nucleus. Note=Predominantly cytoplasmic; the pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

**Anti-SOD1 Antibody - Protocols**

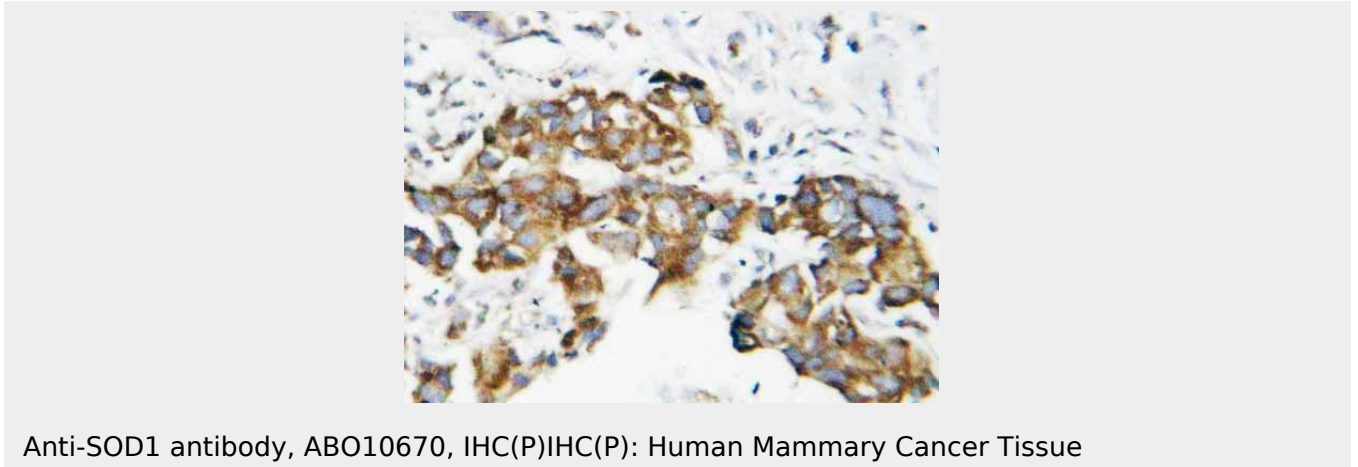
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-SOD1 Antibody - Images**



Anti-SOD1 antibody, ABO10670, Western blotting Lane 1: COLO320 Cell Lysate Lane 2: SMMC Cell Lysate



Anti-SOD1 antibody, ABO10670, IHC(P) IHC(P): Human Mammary Cancer Tissue

### **Anti-SOD1 Antibody - Background**

Superoxide dismutases (SOD) are a class of enzymes that catalyze the dismutation of superoxide into oxygen and hydrogen peroxide. As such, they are an important antioxidant defense in nearly all cells exposed to oxygen. One of the exceedingly rare exceptions is *Lactobacillus plantarum* and related lactobacilli, which use a different mechanism. Cu,Zn-SOD was found widely distributed in the cell cytosol and in the cell nucleus, consistent with it being a soluble cytosolic protein. Mitochondria and secretory compartments did not label for this protein. In human cells, peroxisomes showed a labeling density slightly less than that of cytoplasm.