

**Anti-SOD1 Picoband Antibody**  
Catalog # ABO12093**Specification****Anti-SOD1 Picoband Antibody - Product Information**

Application	WB
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 in Human;Mouse;Rat.

**Reconstitution**

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

**Anti-SOD1 Picoband 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**

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat <br>

**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 Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of Human SOD1 (116-146aa RTLVVHEKADDLGKGGNEESTKTGNAGSRLA), different from the related mouse and rat sequences 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 Picoband 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

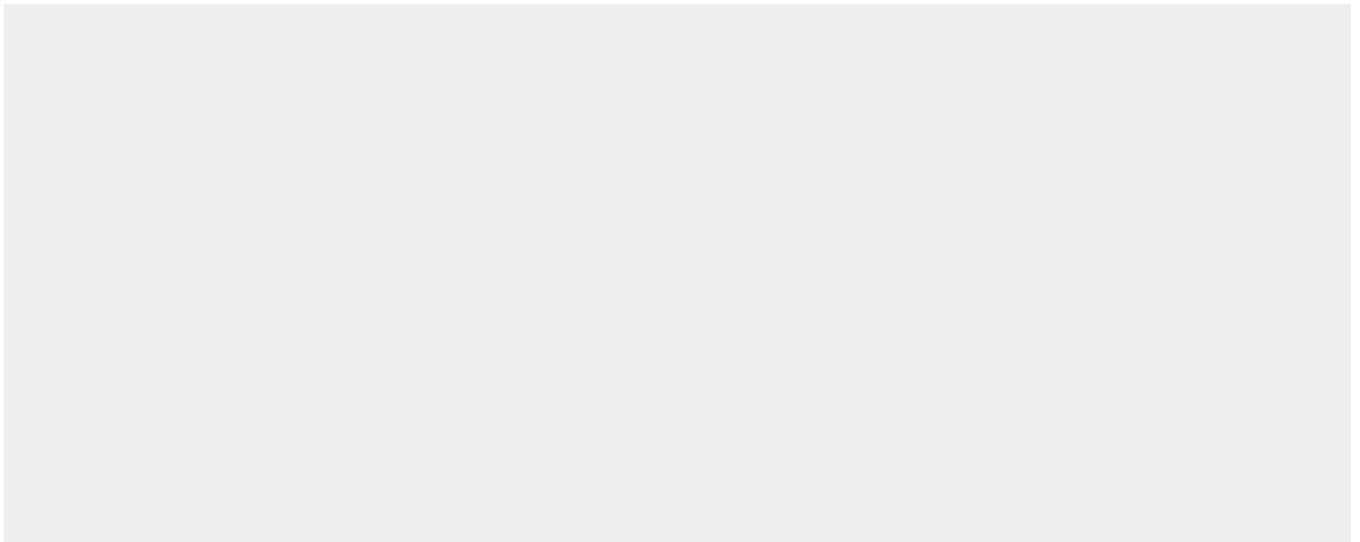
Cytoplasm. Nucleus. Note=Predominantly cytoplasmic; the pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

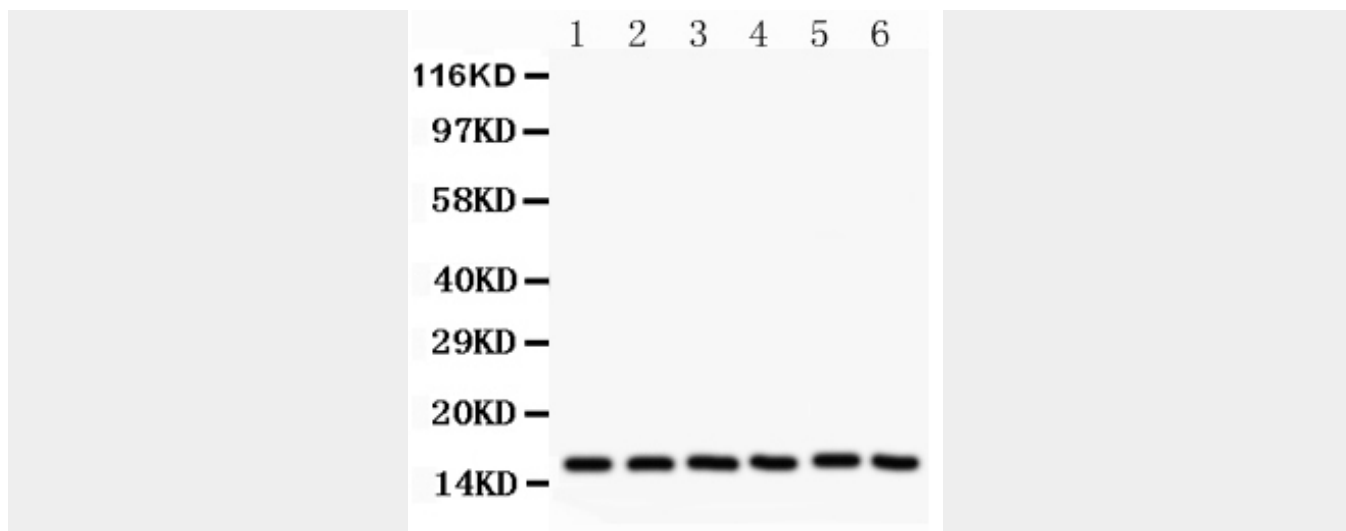
## Anti-SOD1 Picoband Antibody - Protocols

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 Picoband Antibody - Images





Anti- SOD1 Picoband antibody, ABO12093, Western blotting All lanes: Anti SOD1 (ABO12093) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: Human Placenta Tissue Lysate at 50ug Lane 4: COLO320 Whole Cell Lysate at 40ug Lane 5: HELA Whole Cell Lysate at 40ug Lane 6: MCF-7 Whole Cell Lysate at 40ug Predicted bind size: 16KD Observed bind size: 16KD

#### **Anti-SOD1 Picoband 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.