

**SOD3 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6871a****Specification**

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**SOD3 Antibody (N-term) - Product Information**

Application	<b>WB, IHC-P, FC,E</b>
Primary Accession	<a href="#">P08294</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>7-36</b>

**SOD3 Antibody (N-term) - Additional Information****Gene ID** 6649**Other Names**

Extracellular superoxide dismutase [Cu-Zn], EC-SOD, SOD3

**Target/Specificity**

This SOD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 7-36 amino acids from the N-terminal region of human SOD3.

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50  
FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SOD3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**SOD3 Antibody (N-term) - Protein Information****Name** SOD3

**Function** Protect the extracellular space from toxic effect of reactive oxygen intermediates by converting superoxide radicals into hydrogen peroxide and oxygen.

### Cellular Location

Secreted, extracellular space. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:O09164}. Note=99% of EC-SOD is anchored to heparan sulfate proteoglycans in the tissue interstitium, and 1% is located in the vasculature in equilibrium between the plasma and the endothelium

### Tissue Location

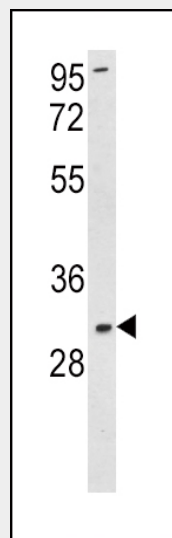
Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid

### SOD3 Antibody (N-term) - Protocols

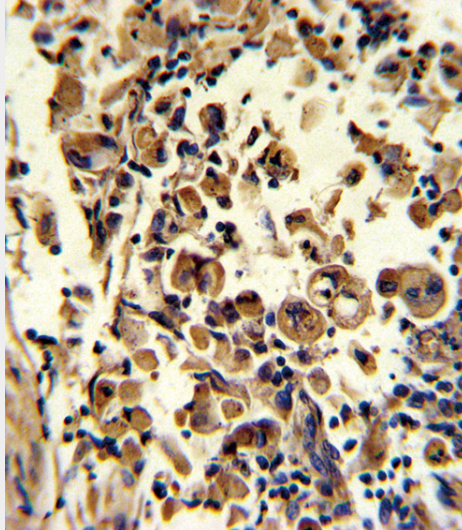
Provided below are standard protocols that you may find useful for product applications.

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

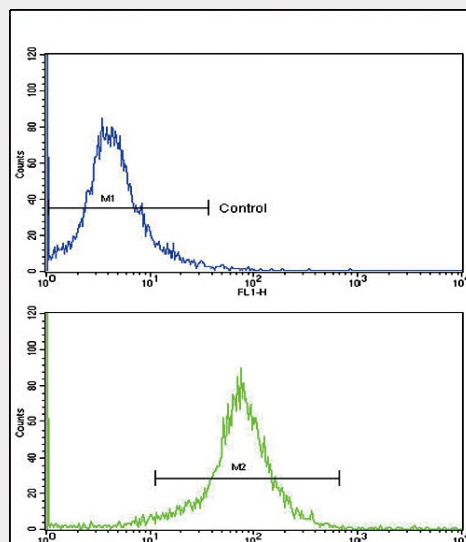
### SOD3 Antibody (N-term) - Images



Western blot analysis of SOD3 Antibody (N-term) (Cat. #AP6871a) in K562 cell line lysates (35ug/lane). SOD3 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with SOD3 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of K562 cells using SOD3 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### **SOD3 Antibody (N-term) - Background**

SOD3 is a member of the superoxide dismutase(SOD) protein family. SODs are antioxidant enzymes that catalyze the dismutation of two superoxide radicals into hydrogen peroxide and oxygen. This protein is thought to protect the brain, lungs, and other tissues from oxidative stress. The protein is secreted into the extracellular space and forms a glycosylated homotetramer that is anchored to the extracellular matrix (ECM) and cell surfaces through an interaction with heparan sulfate proteoglycan and collagen. A fraction of the protein is cleaved near the C-terminus before secretion to generate circulating tetramers that do not interact with the ECM.

### **SOD3 Antibody (N-term) - References**

Stern,L.F., et.al., Cytogenet. Genome Res. 101 (2), 178 (2003)

**SOD3 Antibody (N-term) - Citations**

- [Glutathione-dependent and -independent oxidative stress-control mechanisms distinguish normal human mammary epithelial cell subsets.](#)