

For Research Use Only

# SOD1 Polyclonal antibody

Catalog Number: 10269-1-AP

Featured Product

310 Publications



## Basic Information

### Catalog Number:

10269-1-AP

### Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG0335

### GenBank Accession Number:

BC001034

### GeneID (NCBI):

6647

### UNIPROT ID:

P00441

### Full Name:

superoxide dismutase 1, soluble

### Calculated MW:

16 kDa

### Observed MW:

16-20 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:300-1:1200

IF-P: 1:50-1:500

IF/ICC: 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP, ELISA

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, canine, chicken, bovine, goat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB**: HEK-293 cells, HEK-293T cells, HeLa cells, SH-SY5Y cells, Neuro-2 cells, mouse brain tissue, mouse liver tissue, rat brain tissue, rat liver tissue, Jurkat cells, human placenta tissue

**IP**: HEK-293 cells, HeLa cells

**IHC**: human liver cancer tissue, human colon tissue, human heart tissue

**IF-P**: mouse brain tissue,

**IF/ICC**: HEK-293 cells, HeLa cells

## Background Information

The enzymatic function of Cu/Zn Superoxide Dismutase (SOD1), previously known as hemocuprein and IPOA, was first characterized in 1969 (PMID: 5389100). SOD1 is commonly known for its ROS scavenging activity, but recent work has uncovered additional roles in modulating metabolism, maintaining redox balance, and regulating transcription. In disease contexts, SOD1 is best-known for its role in a familial form of amyotrophic lateral sclerosis (fALS) (PMID: 10630188). In addition, SOD1 is overexpressed in numerous cancer types, including lung adenocarcinoma, non-small-cell lung cancer, and 70% of primary breast cancers (PMID: 31344643).

## Notable Publications

Author	Pubmed ID	Journal	Application
Kentaro Hayashi	27716404	Acta Neuropathol Commun	
Huidong Wang	36249770	Front Pharmacol	IF
Lalit Pukhrambam Singh	35187384	JOJ Ophthalmol	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

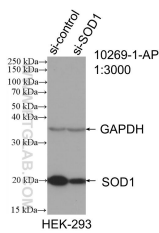
For technical support and original validation data for this product please contact:

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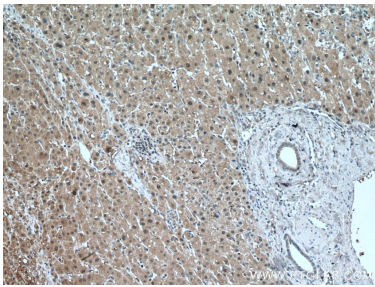
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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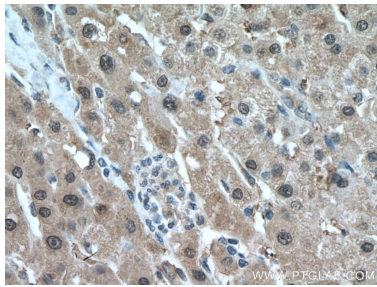
Selected Validation Data



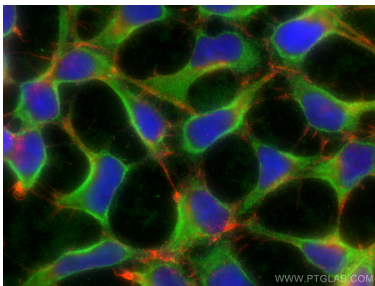
WB result of SOD1 antibody (10269-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SOD1 transfected HEK-293 cells.



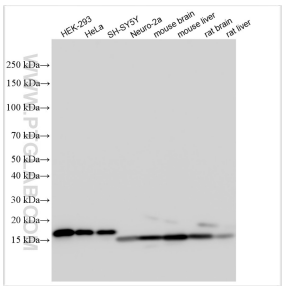
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 10269-1-AP (SOD1 antibody) at dilution of 1:600 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



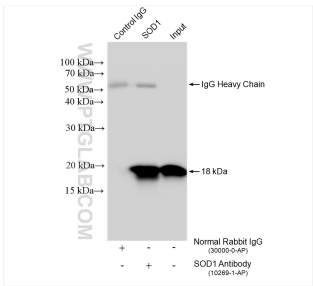
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 10269-1-AP (SOD1 antibody) at dilution of 1:600 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



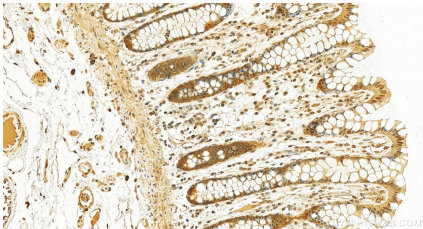
Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using SOD1 antibody (10269-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



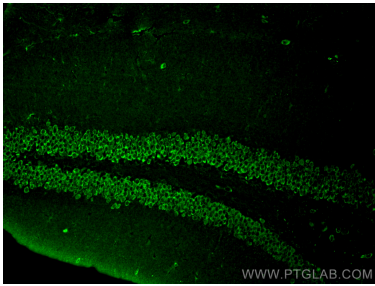
Various lysates were subjected to SDS PAGE followed by western blot with 10269-1-AP (SOD1 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



IP result of anti-SOD1 (IP:10269-1-AP, 4ug; Detection:10269-1-AP 1:6000) with HEK-293 cells lysate 1470 ug.



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 10269-1-AP (SOD1 antibody) at dilution of 1:3000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse brain tissue using SOD1 antibody (10269-1-AP) at dilution of 1:200 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).