For Research Use Only

SOD1 Polyclonal antibody

Catalog Number:10269-1-AP Featured Product 242 Publications

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Basic Information

Catalog Number:
10269-1-AP

Size:
150ul , Concentration: 1000 µg/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 1:200-1:800

Applications

Tested Applications:
WB, IP, IF, IHC, ELISA

Cited Applications:
WB, IP, IF, IHC, CoIP, ELISA

Species Specificity:
human, mouse, rat

Cited Species:
human, goat, chicken, rat, mouse, pig, canine, bovine

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-293T cells, HeLa cells, HEK-293 cells, Jurkat cells, SH-SY5Y cells, human placenta tissue, mouse brain tissue, mouse liver tissue, rat liver tissue

IP : HEK-293 cells, HeLa cells

IHC : human liver cancer tissue, human heart tissue

IF : 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

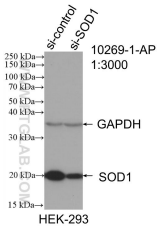
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

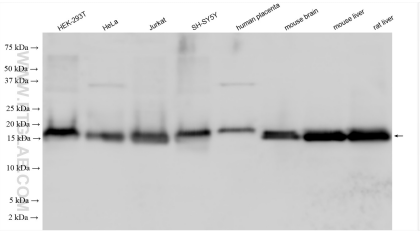
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

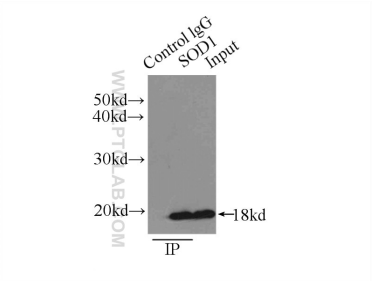
Selected Validation Data



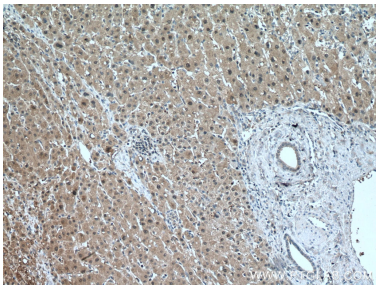
WB result of SOD1 antibody (10269-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SOD1 transfected HEK-293 cells.



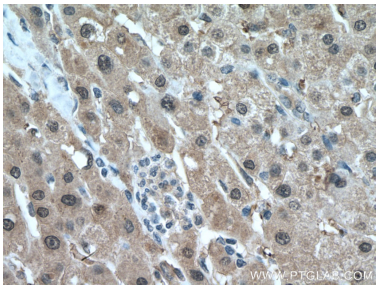
Various lysates were subjected to SDS PAGE followed by western blot with 10269-1-AP (SOD1 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



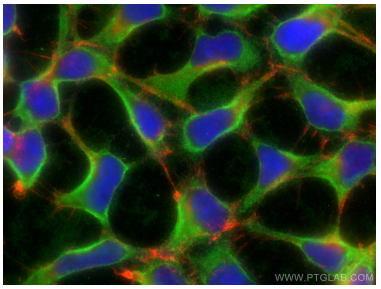
IP result of anti-SOD1 (IP:10269-1-AP, 3ug; Detection:10269-1-AP 1:1500) with HEK-293 cells lysate 1000ug.



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).