

For Research Use Only

SOD1 Monoclonal antibody

Catalog Number: 67480-1-Ig

Featured Product

21 Publications



Basic Information

Catalog Number:

67480-1-Ig

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop and 418 ug/ml by Bradford method using BSA as the standard;

Source:

Mouse

Isotype:

IgG2a

Immunogen Catalog Number:

AG28553

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:

Protein A purification

CloneNo.:

2F10G1

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:200-1:1000

IF/ICC 1:400-1:1600

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat, pig, rabbit

Cited Species:

human, mouse, rat, pig

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: HeLa cells, rabbit brain tissue, HEK-293 cells, HepG2 cells, Jurkat cells, pig brain tissue, rat brain tissue, mouse brain tissue, K-562 cells, HSC-T6 cells

IHC: human liver cancer tissue, mouse brain tissue, mouse cerebellum tissue, rat brain tissue, rat cerebellum tissue

IF/ICC: NIH/3T3 cells, HEK-293T 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). SOD1 can be detected 24, 32, 40 and 48 kDa by ubiquitination (PMID: 16943203).

Notable Publications

Author	Pubmed ID	Journal	Application
Jie Zou	34825483	Thorac Cancer	WB
Jie Jin	34795843	Oxid Med Cell Longev	IF
Pei-Yu Wu	35738116	Phytomedicine	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

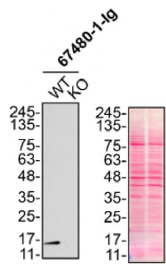
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

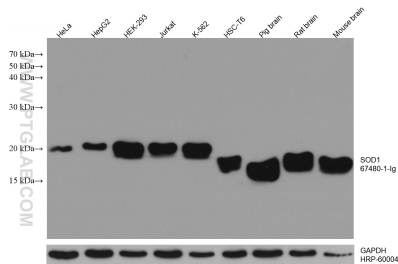
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

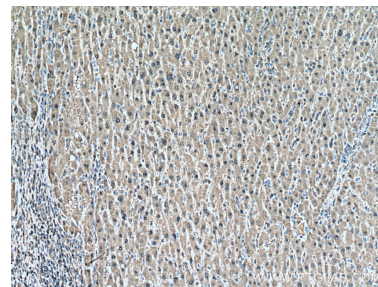
Selected Validation Data



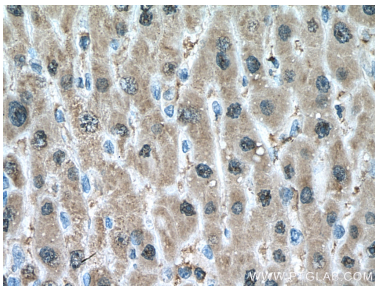
HeLa (WT and SOD1 KO) lysates prepared with RIPA buffer, 20 µg protein loaded. 67480-1 Ig incubated at 1:10000 at 4°C overnight in 5% milk in TBST. Ponceau stained transfers shown on right. Data provided by YCharO5, an open science company with a mission to validate commercial antibodies to improve scientific reproducibility and transparency.



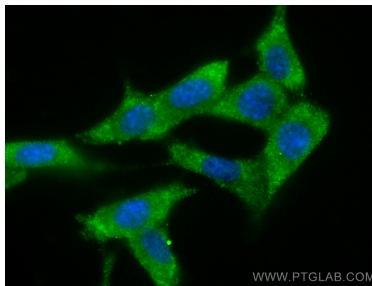
Various lysates were subjected to SDS PAGE followed by western blot with 67480-1- \lg (SOD1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



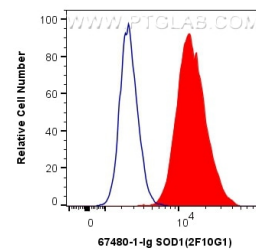
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67480-1-Ig (SOD1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 67480-1-Ig (SOD1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed NIH/3T3 cells using SOD1 antibody (67480-1-Ig, Clone: 2F10G1) at dilution of 1:800 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).



1X10⁶ HEK-293T cells were intracellularly stained with 0.4 μ M Anti-Human SOD1 (67480-1 Ig, Clone:2F10G1) and Coralite[®]488-Conjugated Goat Anti-Mouse IgG_{2a}(H+L) at dilution 1:1000 (red), or 0.4 μ M Mouse IgG_{2a} Isotype Control (C1.18.4) (65208-1 Ig, Clone: C1.18.4) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF000111-C).