

For Research Use Only

# SOD2 Monoclonal antibody

Catalog Number: 66474-1-Ig

Featured Product

36 Publications



## Basic Information

**Catalog Number:**

66474-1-Ig

**Size:**

1500 µg/ml

**Source:**

Mouse

**Isotype:**

IgG2a

**Immunogen Catalog Number:**

AG21388

**GenBank Accession Number:**

BC016934

**GeneID (NCBI):**

6648

**UNIPROT ID:**

P04179

**Full Name:**

superoxide dismutase 2,  
mitochondrial

**Calculated MW:**

25 kDa

**Observed MW:**

25 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

3A6C2

**Recommended Dilutions:**

WB 1:5000-1:50000

IHC 1:2500-1:10000

IF 1:200-1:800

## Applications

**Tested Applications:**

FC, IF/ICC, IHC, WB, ELISA

**Cited Applications:**

WB, IF, IHC, CoIP

**Species Specificity:**

Human, mouse, rat, pig

**Cited Species:**

human, goat, rat, mouse, 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:** U2OS cells, HeLa cells, ROS1728 cells, RAW 264.7 cells, pig brain tissue, rat brain tissue, mouse brain tissue

**IHC:** human liver cancer tissue, human liver tissue, human colon cancer tissue, human pancreas cancer tissue, mouse liver tissue, rat liver tissue

**IF:** HUVEC cells,

## Background Information

SOD2 (superoxide dismutase 2, mitochondrial) is also named as IPOB, MNSOD, SODM, Mn-SOD and belongs to the iron/manganese superoxide dismutase family. It is a marker of mitochondria, which is restricted to the perinuclear area in a cell with aggregate formation of mutant SOD1 (PMID:12659845). It functions as the first line of antioxidant defense against highly reactive superoxide radicals and it appears to be early predictors for survival in septic patients with MIF (PMID:20863520). It has 2 isoforms with the molecular weight of 25 kDa and 21 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lupeng Chen	34603279	Front Immunol	WB
Ling Li	34532973	J Cell Mol Med	WB
Fan Yu	31669212	J Control Release	WB,IF

## 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

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

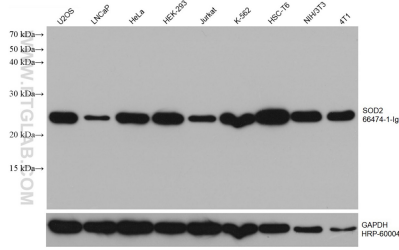
T: 4006900926

E: Proteintech-CN@ptglab.com

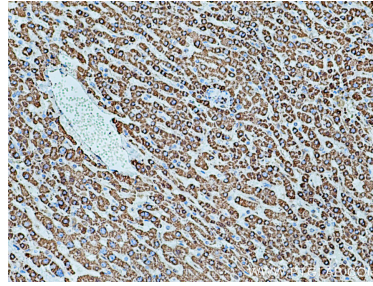
W: ptgcn.com

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

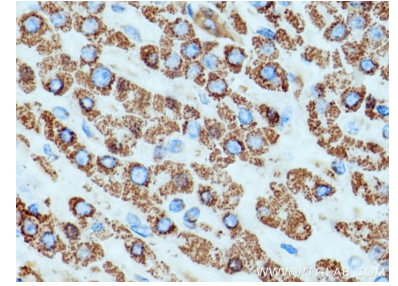
## Selected Validation Data



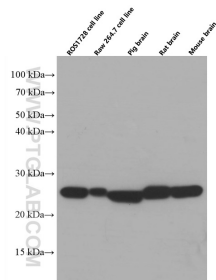
Various lysates were subjected to SDS PAGE followed by western blot with 66474-1-Ig (SOD2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



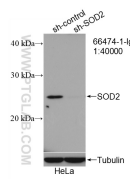
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66474-1-Ig (SOD2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



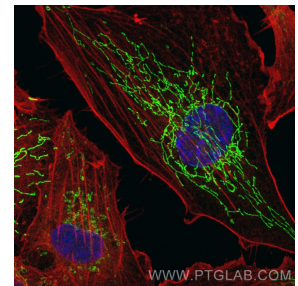
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66474-1-Ig (SOD2 antibody) at dilution of 1:5000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



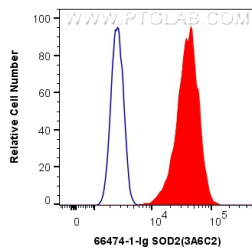
Various lysates were subjected to SDS PAGE followed by western blot with 66474-1-Ig (SOD2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



WB result of SOD2 antibody (66474-1-Ig; 1:40000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SOD2 transfected HeLa cells.



Immunofluorescent analysis of (-20°C Methanol) fixed HUVEC cells using SOD2 antibody (66474-1-Ig, Clone: 3A6C2) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human SOD2 (66474-1-Ig, Clone:3A6C2) and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2a 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 (PF00011-C).