

For Research Use Only

# SOD2 Monoclonal antibody

Catalog Number: 66474-1-Ig

Featured Product

58 Publications



## Basic Information

<b>Catalog Number:</b> 66474-1-Ig	<b>GenBank Accession Number:</b> BC016934	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 6648	<b>CloneNo.:</b> 3A6C2
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P04179	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:2500-1:10000 IF/ICC 1:200-1:800
<b>Isotype:</b> IgG2a	<b>Full Name:</b> superoxide dismutase 2, mitochondrial	
<b>Immunogen Catalog Number:</b> AG21388	<b>Calculated MW:</b> 25 kDa	
	<b>Observed MW:</b> 25 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, FC (Intra), ELISA

**Cited Applications:**  
WB, IHC, IF, ColP

**Species Specificity:**  
human, mouse, rat, pig

**Cited Species:**  
human, mouse, rat, pig, 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 :** 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/ICC :** 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

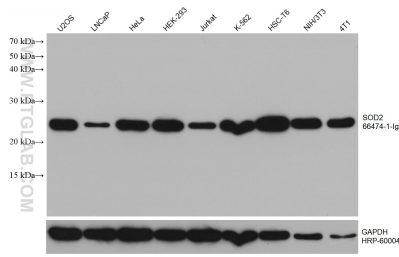
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

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

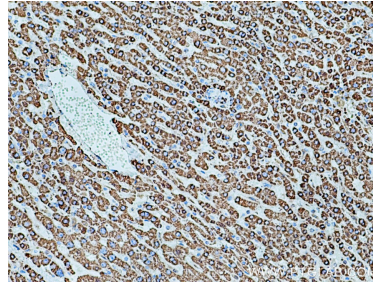
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

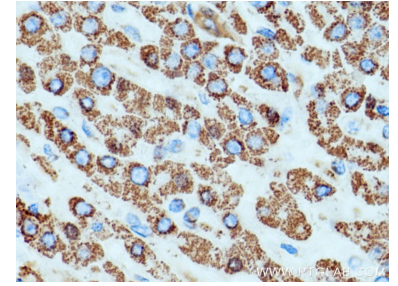
## Selected Validation Data



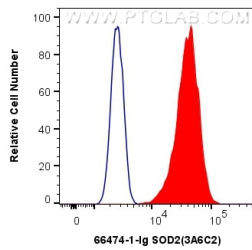
Various lysates were subjected to SDS PAGE followed by western blot with 66474-1-Ig (SOD2 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



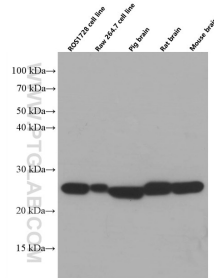
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66474-1-Ig (SOD2 antibody) at dilution of 1:5000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



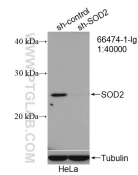
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66474-1-Ig (SOD2 antibody) at dilution of 1:5000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



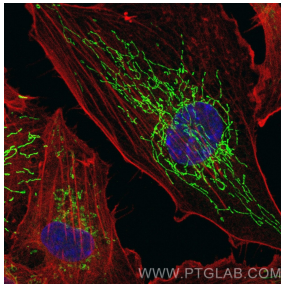
1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human SOD2 (66474-1-Ig, Clone:3A6C2) and Coralite®488-Conjugated Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2a Isotype Control (C.1.18.4) (65208-1-Ig, Clone: C.1.18.4) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



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 Goat Anti-Mouse IgG(H+L).