

SOD2 Rabbit mAb

Catalog No: #49265



Package Size: #49265-1 50ul #49265-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

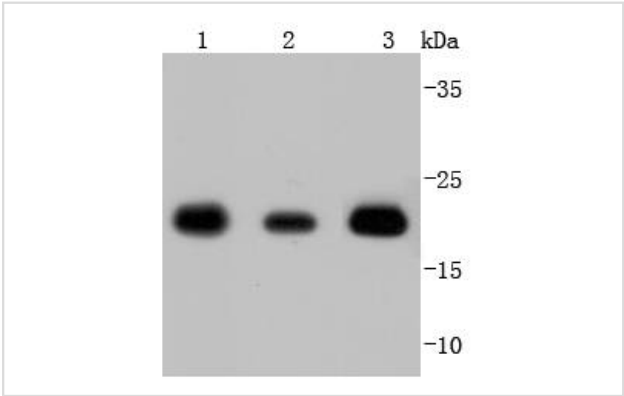
Description

Product Name	SOD2 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JJ089-02
Purification	ProA affinity purified
Applications	WB, IHC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	recombinant protein
Conjugates	Unconjugated
Other Names	Indophenoloxidase B antibody IPO B antibody IPOB antibody Manganese containing superoxide dismutase antibody Manganese SOD antibody Manganese superoxide dismutase antibody Mangano superoxide dismutase antibody Mn SOD antibody Mn superoxide dismutase antibody MNSOD antibody MVCD6 antibody SOD 2 antibody SOD2 antibody SODM_HUMAN antibody Superoxide dismutase [Mn] mitochondrial antibody Superoxide dismutase [Mn], mitochondrial antibody Superoxide dismutase 2 mitochondrial antibody
Accession No.	Swiss-Prot#:P04179
Calculated MW	21 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

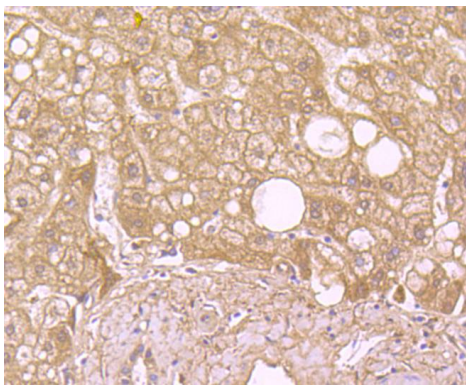
Application Details

WB: 1:1,000-1:2,000 IHC: 1:50-1:200

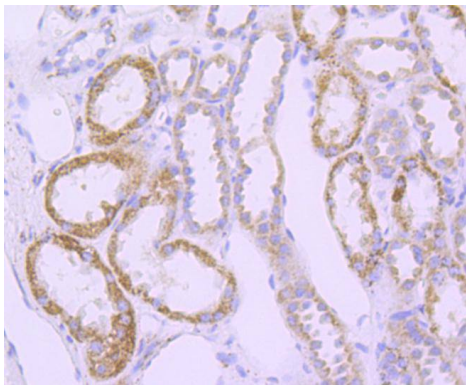
Images



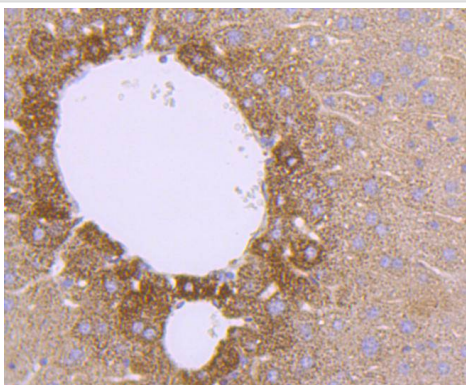
Western blot analysis of SOD2 on different lysates using anti-SOD2 antibody at 1/1,000 dilution. Positive control: Lane 1: Mouse brain Lane 2: SH-SY-5Y Lane 3: Human heart



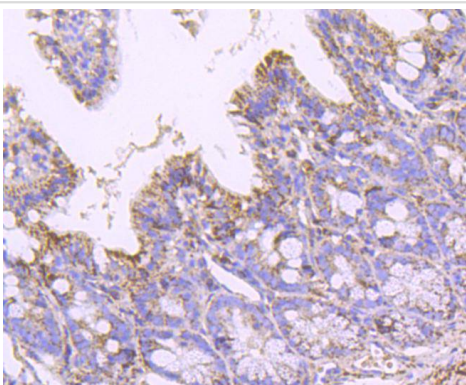
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-SOD2 antibody. Counter stained with hematoxylin.



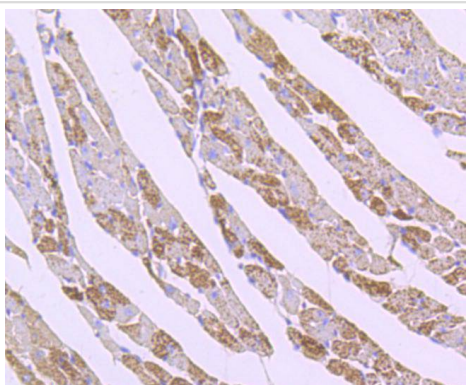
Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-SOD2 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-SOD2 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-SOD2 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-SOD2 antibody. Counter stained with hematoxylin.

Background

The superoxide dismutase family is composed of three metalloenzymes (SOD-1, SOD-2 and SOD-3) that catalyze the oxido-reduction of reactive oxygen species (ROS) such as superoxide anion. The SOD-2 precursor is a 222 amino acid protein that is encoded by nuclear chromatin, synthesized in the cytosol and imported posttranslationally into the mitochondrial matrix. Unlike SOD-1, which is a homodimeric cytosolic Cu-Zn enzyme, SOD-2 is a homotetrameric manganese enzyme (also known as MnSOD) that functions in the mitochondrion. ROS are implicated in a wide range of degenerative processes, including Alzheimer's disease, Parkinson's disease and ischemic heart disease. Homozygous mutant mice, which lack SOD-2, exhibit dilated cardiomyopathy, accumulation of lipid in liver and skeletal muscle, metabolic acidosis, oxidative DNA damage and respiratory chain deficiencies in heart and skeletal muscle. Polymorphisms in the SOD-2 gene have also been implicated in nonfamilial, idiopathic, dilated cardiomyopathy in humans.

References

1. Carlson RI et al. Development and application of an antibody-based protein microarray to assess physiological stress in grizzly bears (*Ursus arctos*). *Conserv Physiol* 4:cow001 (2016).
2. Greco T et al. Ketogenic diet decreases oxidative stress and improves mitochondrial respiratory complex activity. *J Cereb Blood Flow Metab* 36:1603-13 (2016).

Published Papers

Yuwen Liu;Jiping Liu;Naping Hu;Zhengrong Li;Anqi Liu;Ruyue Luo;Siyu Du;Dongyan Guo;Jiankang Li;Jialin Duan et al., Classical prescription Daqinjiao decoction inhibit cerebral ischemia/reperfusion induced necroptosis and ferroptosis through multiple mechanisms., , (2025)
[PMID:39736347](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.