10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SOD2 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM7579a

Specification

SOD2 Antibody - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P04179
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1κ**
Calculated MW	**24750**

SOD2 Antibody - Additional Information

Gene ID 6648

Other Names
Superoxide dismutase [Mn], mitochondrial, SOD2

Target/Specificity
Purified His-tagged SOD protein(Fragment) was used to produced this monoclonal antibody.

Dilution
WB~~1:2000
IHC-P~~1:10~50

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SOD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SOD2 Antibody - Protein Information

Name SOD2

Function Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.

Cellular Location
Mitochondrion matrix.

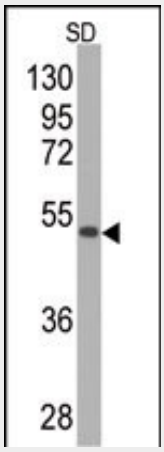
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SOD2 Antibody - Protocols

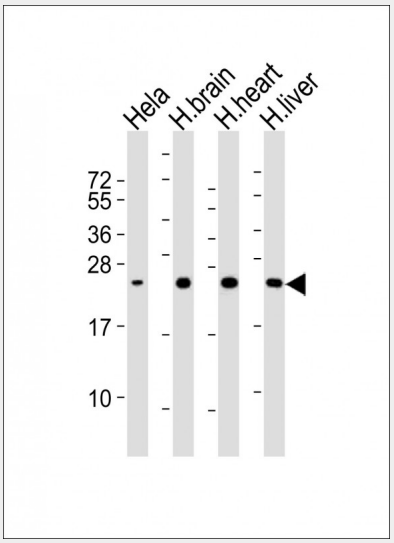
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SOD2 Antibody - Images



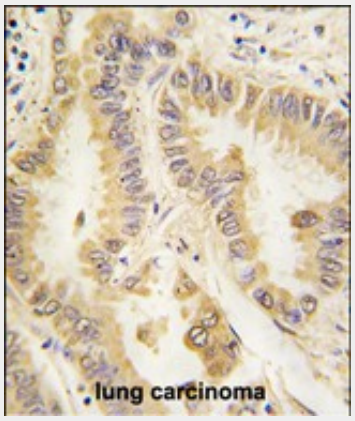
Western blot analysis of anti-SOD2 Monoclonal Antibody (Cat.#AM7579a) by SOD2-GST fusion protein (GST MW=26 kD. SOD2-GST fusion protein (arrow) was detected using the purified Mab. (1:2000)



All lanes : Anti-SD Antibody at 1:2000 dilution Lane 1: Hela whole cell lysates Lane 2: human brain lysates Lane 3: human heart lysates Lane 4: human liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with SOD2 Monoclonal Antibody (Cat.#AM7579a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

SOD2 Antibody - Background

This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

SOD2 Antibody - References

The sequence polymorphism of MnSOD gene in subjects with respiratory insufficiency in COPD. Pietras T, et al. Med Sci Monit, 2010 Aug 7. PMID 20802415.
Association between the rs4880 superoxide dismutase 2 (C>T) gene variant and coronary heart disease in diabetes mellitus. Jones DA, et al. Diabetes Res Clin Pract, 2010 Aug 20. PMID 20728955.
Assessing oxidative pathway genes as risk factors for bipolar disorder. Fullerton JM, et al. Bipolar Disord, 2010 Aug. PMID 20712757.
Do genetic variations in antioxidant enzymes influence the course of hereditary hemochromatosis? Nahon P, et al. Antioxid Redox Signal, 2010 Aug 1. PMID 20673159.
Manganese superoxide dismutase versus p53: the mitochondrial center. Holley AK, et al. Ann N Y Acad Sci, 2010 Jul. PMID 20649542.

SOD2 Antibody - Citations

- Chronic IL-1 exposure drives LNCaP cells to evolve androgen and AR independence
- Identification of an IL-1-induced gene expression pattern in AR+ PCa cells that mimics the molecular phenotype of AR- PCa cells.
- Oxidative status predicts quality in human mesenchymal stem cells.