

**Mouse Monoclonal Antibody to SOD2**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2423a****Specification**

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**Mouse Monoclonal Antibody to SOD2 - Product Information**

Application	<b>E, WB, FC, ICC, IHC</b>
Primary Accession	<a href="#">P04179</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>Mouse IgG1</b>
Calculated MW	<b>24.7kDa KDa</b>

**Description**

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. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 1.;

**Immunogen**

Purified recombinant fragment of human SOD2 (AA: 1-222) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**Application Note**

ELISA: 1/10000; WB: 1/500 - 1/2000; IHC: 1/200 - 1/1000; ICC: 1/50 - 1/250; FCM: 1/200 - 1/400

**Mouse Monoclonal Antibody to SOD2 - Additional Information**

**Gene ID** 6648

**Other Names**

IPOB; IPO-B; MNSOD; MVCD6; Mn-SOD

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Mouse Monoclonal Antibody to SOD2 is for research use only and not for use in diagnostic or therapeutic procedures.

**Mouse Monoclonal Antibody to SOD2 - 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**

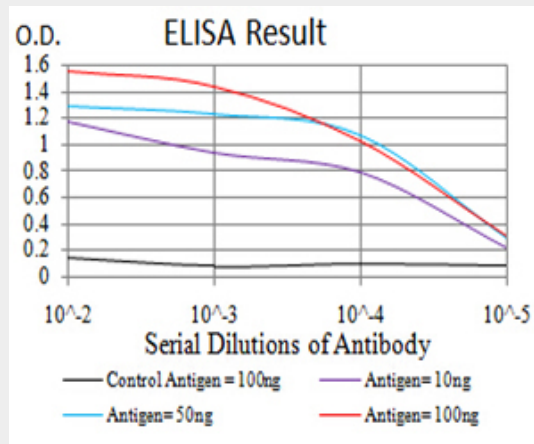
Mitochondrion matrix.

**Mouse Monoclonal Antibody to SOD2 - Protocols**

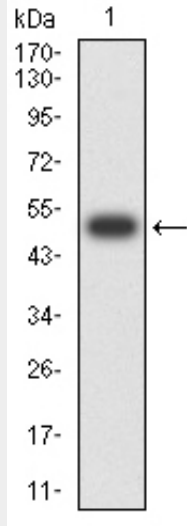
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

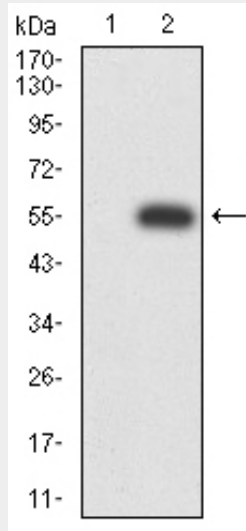
**Mouse Monoclonal Antibody to SOD2 - Images**



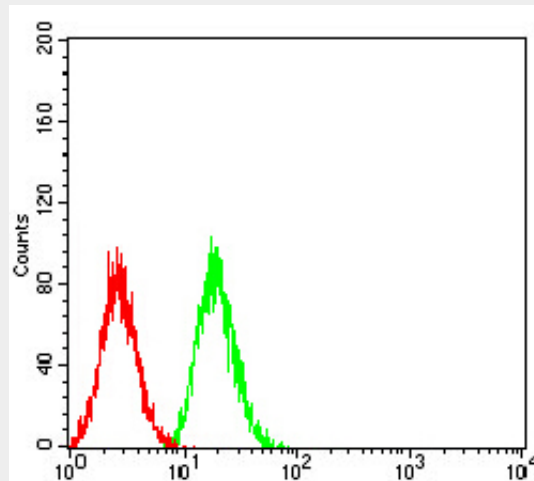
Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



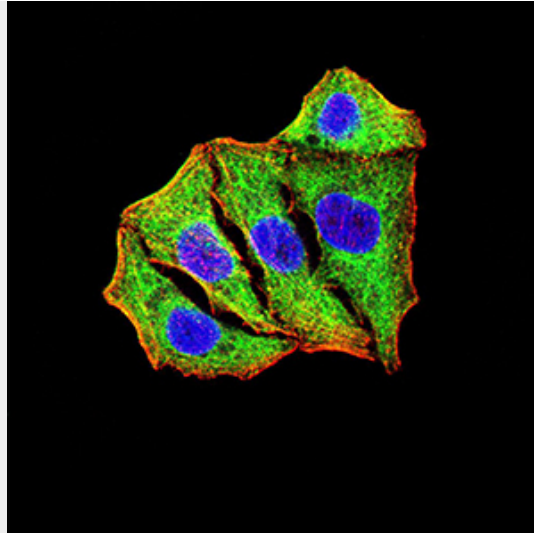
Western blot analysis using SOD2 mAb against human SOD2 (AA: 1-222) recombinant protein. (Expected MW is 50.7 kDa)



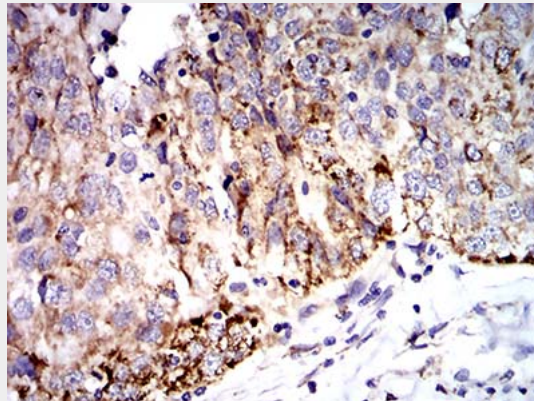
Western blot analysis using SOD2 mAb against HEK293 (1) and SOD2 (AA: 1-222)-hIgGFc transfected HEK293 (2) cell lysate.



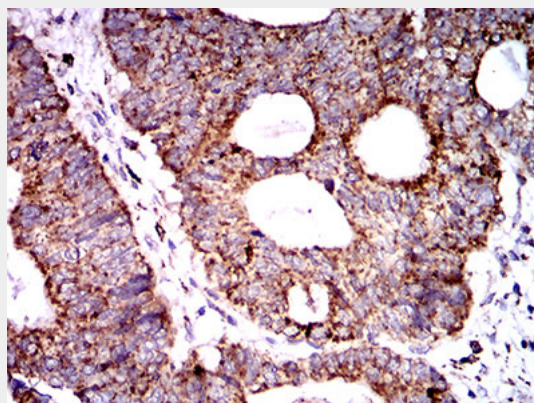
Flow cytometric analysis of HeLa cells using SOD2 mouse mAb (green) and negative control (red).



Immunofluorescence analysis of HeLa cells using SOD2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher



Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using SOD2 mouse mAb with DAB staining.



Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using SOD2 mouse mAb with DAB staining.

### Mouse Monoclonal Antibody to SOD2 - References

1. Dis Markers. 2015;2015:746329. ;
2. Free Radic Biol Med. 2015 Dec;89:379-86.;