

## Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme) Antibody

Mouse Monoclonal Antibody [Clone SOD1/4593]

Catalog No	Format	Size
6647-MSM12-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
6647-MSM12-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
6647-MSM12-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

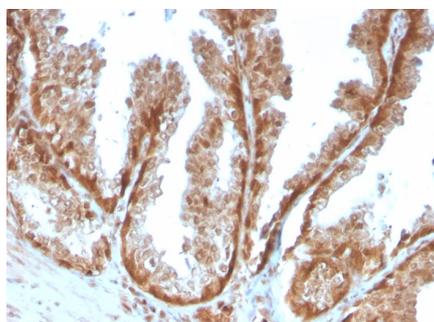
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

### Product Details

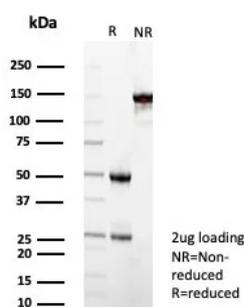
Clone	SOD1/4593
Gene Name	SOD1
Immunogen	Recombinant full-length human SOD1 protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	16kDa
Cellular Localization	Cytoplasm
Species Reactivity	Human
Positive Control	HeLa or Jurkat cells. Human breast or ovarian carcinoma

\*Optimal dilution for a specific application should be determined.

### Product Images for Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme) Antibody



Formalin-fixed, paraffin-embedded human prostate stained with Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/4593). HIER: Tris/EDTA, pH9.0, 45min. 2°C: HRP-polymer, 30min. DAB, 5min.



SDS-PAGE Analysis of Purified Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/4593). Confirmation of Integrity and Purity of Antibody.

**Specificity & Comments**

Cu-Zn superoxide dismutase-1 (SOD-1) is a well-characterized cytosolic scavenger of oxygen free radicals that requires copper and zinc binding to potentiate its enzymatic activity. Enzymatically, SOD-1 facilitates the dismutation of oxygen radicals to hydrogen peroxide and also catalyzes pro-oxidant reactions, which include the peroxidase activity and hydroxyl radical generating activity. SOD-1 is ubiquitously expressed in somatic cells and functions as a homodimer. Defects in the gene encoding SOD-1 have been implicated in the progression of neurological diseases, including amyotrophic lateral sclerosis (ALS), a neurodegenerative disease characterized by the loss of spinal motor neurons, Down syndrome and Alzheimer's disease. In familial ALS, several mutations in SOD-1 predominate, resulting in the loss of zinc binding, the loss of scavenging activity of SOD-1, and correlate with an increase in neurotoxicity and motor neuron death.

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**Limitations and Warranty**

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

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**Supplied As**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

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**Storage and Stability**

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

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**Research Areas**

Cardiovascular, Cytokine Signaling, Immunology, Neuroscience, Nuclear Marker

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