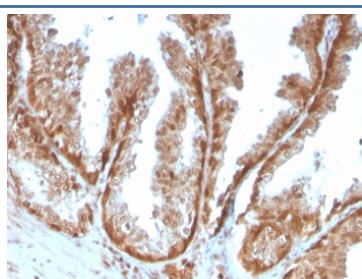


## SOD1 Antibody / Superoxide Dismutase 1 [clone SOD1/4593] (V4835)

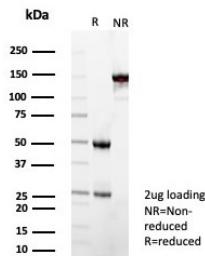
Catalog No.	Formulation	Size
V4835-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4835-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4835SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

**Bulk quote request**

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clone Name</b>	SOD1/4593
<b>Purity</b>	Protein A/G affinity
<b>UniProt</b>	P00441
<b>Localization</b>	Cytoplasm
<b>Applications</b>	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
<b>Limitations</b>	This SOD1 antibody is available for research use only.



IHC staining of FFPE human prostate tissue with SOD1 antibody (clone SOD1/4593).  
HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free SOD1 antibody (clone SOD1/4593) as confirmation of integrity and purity.

## Description

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.

## Application Notes

Optimal dilution of the SOD1 antibody should be determined by the researcher.

## Immunogen

Recombinant full-length human protein was used as the immunogen for the SOD1 antibody.

## Storage

Aliquot the SOD1 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.