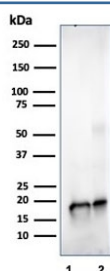


## SOD1 Antibody / Superoxide Dismutase 1 [clone SOD1/4329] (V9162)

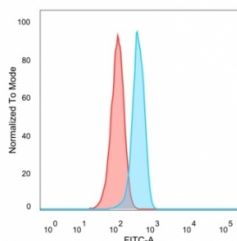
Catalog No.	Formulation	Size
V9162-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9162-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9162SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

[Bulk quote request](#)

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG2b, kappa
<b>Clone Name</b>	SOD1/4329
<b>Purity</b>	Protein A/G affinity
<b>UniProt</b>	P00441
<b>Localization</b>	Cytoplasmic, nuclear
<b>Applications</b>	Flow Cytometry : 1-2ug/million cells Western Blot : 2-4ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
<b>Limitations</b>	This SOD1 antibody is available for research use only.

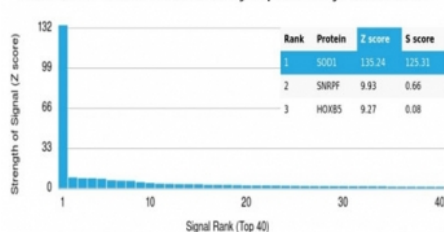


Western blot testing of human 1) JEG-3 and 2) LNCaP cell lysate using SOD1 antibody (clone SOD1/4329). Predicted molecular weight ~16 kDa.



FACS staining of PFA-fixed human MCF-7 cells with using SOD1 antibody (blue, clone SOD1/4331) and isotype control (red).

Human Protein Microarray Specificity Validation



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SOD1 antibody (clone SOD1/4329). These results demonstrate the foremost specificity of the SOD1/4329 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

## 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

A portion of amino acids 14-148 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.