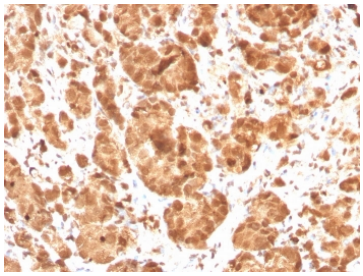
SOD1 Antibody / Superoxide Dismutase 1 [clone SOD1/3925] (V8622)

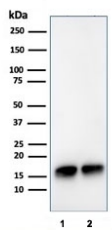
Catalog No.	Formulation	Size
V8622-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8622-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8622SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

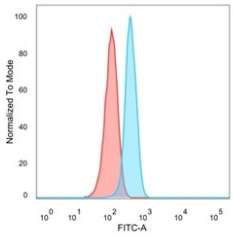
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SOD1/3925
Purity	Protein G affinity chromatography
UniProt	P00441
Localization	Cytoplasmic, nuclear
Applications	Western blot: 2-4ug/ml Flow cytometry: 1-2ug/million cells Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This SOD1 antibody is available for research use only.



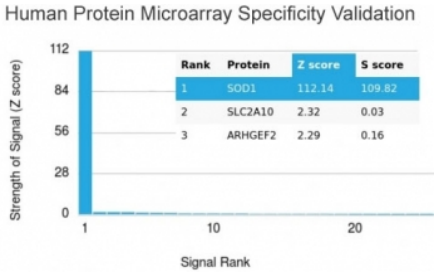
IHC staining of FFPE human tonsil with SOD1 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



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



Flow cytometry testing of PFA-fixed human MCF7 cells with SOD1 antibody; Red=isotype control, Blue= SOD1 antibody.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SOD1 antibody. These results demonstrate the foremost specificity of the SOD1/3925 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 from the human protein was used as the immunogen for the SOD1 antibody.

Storage

Store the SOD1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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