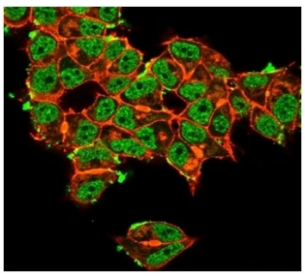
Superoxide Dismutase 1 Antibody / SOD1 [clone SOD1/3923] (V9586)

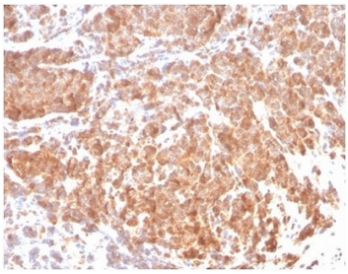
Catalog No.	Formulation	Size
V9586-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9586-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9586SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

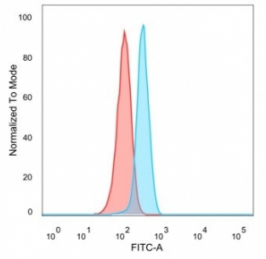
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SOD1/3923
Purity	Protein A/G affinity
UniProt	P00441
Localization	Cytoplasmic, nuclear
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Superoxide Dismutase 1 antibody is available for research use only.



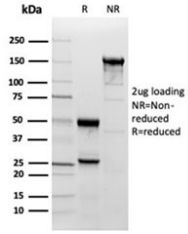
Immunofluorescent staining of PFA-fixed human MCF-7 cells Superoxide Dismutase 1 antibody (green, clone SOD1/3923) and phalloidin (red).



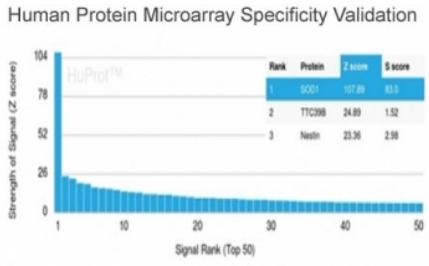
IHC staining of FFPE human prostate tissue with Superoxide Dismutase 1 antibody (clone SOD1/3923) at 2ug/ml in PBS for 30min RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



FACS staining of PFA-fixed human MCF-7 cells with Superoxide Dismutase 1 antibody (blue, clone SOD1/3923), and unstained cells (red).



SDS-PAGE analysis of purified, BSA-free Superoxide Dismutase 1 antibody (clone SOD1/3923) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Superoxide Dismutase 1 antibody (clone SOD1/3923). These results demonstrate the foremost specificity of the SOD1/3923 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 Superoxide Dismutase 1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the Superoxide Dismutase 1 antibody.

Storage

Aliquot the Superoxide Dismutase 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Copyright © NSJ Bioreagents. All rights reserved.