Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme) Antibody

Mouse Monoclonal Antibody [Clone SOD1/3925]

Catalog No	Format	Size
6647-MSM5-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
6647-MSM5-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
6647-MSM5-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

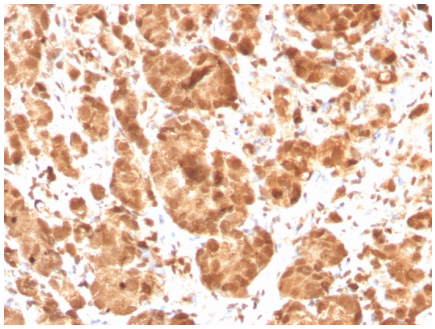
Applications	Tested Dillution	Note
Flow Cytometry (Flow)	1-2ug/million cells	
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

Product Details

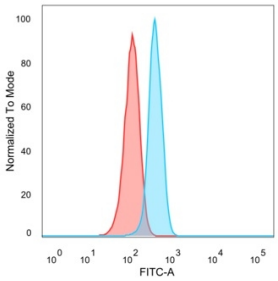
Clone	SOD1/3925
Gene Name	SOD1
Immunogen	Recombinant fragment (around aa14-148) of human SOD1 (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2b / Kappa
Mol. Weight of Antigen	16kDa
Cellular Localization	Cytoplasm, Mitochondrion, Nucleus
Species Reactivity	Human
Positive Control	JEG-3 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



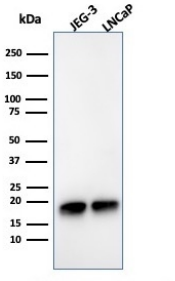
Formalin-fixed, paraffin-embedded human tonsil stained with Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/3926).



Flow Cytometric Analysis of PFA-fixed MCF-7 cells using Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/3925) followed by goat anti-mouse IgG-CF488 (blue); isotype control (red).



Analysis of Protein Array containing more than 19,000 full-length human proteinsusing Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/3925). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



Western Blot Analysis of JEG-3 and LNCaP cell lysates using Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/3925).

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.

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.

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.

Research Areas

Cardiovascular, Cytokine Signaling, Immunology, Neuroscience, Nuclear Marker

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.