Mouse Superoxide Dismutase 1 (SOD1) Monoclonal Antibody | anti-SOD1 antibody

Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA214687	**Mouse**	**Human. Others not known.**	**Immunohistochemistry**

PRODUCT SYNONYMS

Superoxide Dismutase 1 (SOD1); Monoclonal Antibody; Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme); Amyotrophic lateral sclerosis 1 (ALS1); Cu/Zn SOD; Cu/Zn Superoxide Dismutase; Epididymis Secretory Protein Li 44; Indophenoloxidase A (IPOA); Superoxide Dismutase [Cu-Zn]; anti-SOD1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human. Others not known.
Clonality	Monoclonal
Isotype	IgG
Clone Number	SOD1/2089
Specificity	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 Alzheimers 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.
Form/Format	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.
Sequence Length	154
Applicable Applications for anti-SOD1 antibody	IHC (Immunohistochemistry)
Immunogen	Recombinant full-length human SOD1 protein
Cellular Localization	Cytoplasmic
Hu-chromosome Location	21q22.11
Positive Control	HeLa or Jurkat Cells. Breast or Ovarian carcinoma

IMAGES

Application Data
Analysis of Protein Array containing more than 19, 000 full-length human proteins using Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/2089).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.

SDS-PAGE
SDS-PAGE Analysis Purified Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/2089).Confirmation of Integrity and Purity of Antibody.

IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Placenta stained with Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/2089).

ADDITIONAL INFORMATION

References	Levanon, D., et al. 1985. Architecture and anatomy of the chromosomal locus in human chromosome 21 encoding the Cu-Zn superoxide dismutase. EMBO J. 4: 77-84.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507149
NCBI GeneID	6647
NCBI Accession #	NP_000445.1
NCBI GenBank Nucleotide #	NP_000445.1
UniProt Accession #	P00441; Q16669; Q16711; Q16838; Q16839; Q16840; Q6NR85; A6NHJ0; D3DSE4
Molecular Weight	23kDa
NCBI Official Full Name	superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 1
NCBI Official Symbol	SOD1
NCBI Official Synonym Symbols	ALS; SOD; ALS1; IPOA; hSod1; HEL-S-44; homodimer
NCBI Protein Information	superoxide dismutase [Cu-Zn]
UniProt Protein Name	Superoxide dismutase [Cu-Zn]
UniProt Gene Name	**SOD1**
UniProt Synonym Gene Names	hSod1

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