9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

36-3165: Anti-Superoxide Dismutase 1 (SOD1) (Antioxidant Enzyme) Monoclonal Antibody(Clone: SOD1/2089)

Clonality :	Monoclonal
Clone Name :	SOD1/2089
Application :	IHC
Reactivity :	Human
Gene :	SOD1
Gene ID :	6647
Uniprot ID :	P00441
Alternative Name :	Amyotrophic lateral sclerosis 1 (ALS1); Cu/Zn SOD; Cu/Zn Superoxide Dismutase; Epididymis Secretory Protein Li 44; Indophenoloxidase A (IPOA); Superoxide Dismutase [Cu-Zn]; Superoxide Dismutase 1 (SOD1)
Isotype :	Mouse IgG2b, kappa
Immunogen Information :	Recombinant full-length human SOD1 protein

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.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/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 condition :	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.

Application Note

Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),

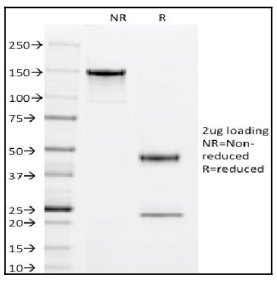

Fig. 1: SDS-PAGE Analysis Purified Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/2089). Confirmation of Integrity and Purity of Antibody.

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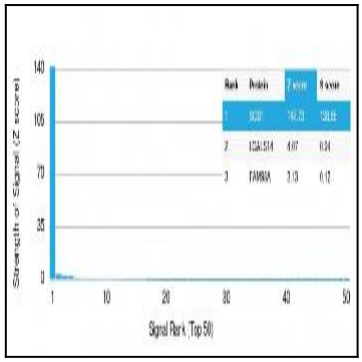

Fig. 2: Analysis of Protein Array containing more than 19,000 full-length human proteins using Superoxide Dismutase 1 Mouse Monoclonal Antibody (SOD1/2089). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (in combination with a fluorescently-tagged 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 Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5. For example, if a Monoclonal Antibody 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 Monoclonal Antibody to protein X is equal to 29.