

Product datasheet

MISFOLDED SOD1 MOUSE MONOCLONAL ANTIBODY (B8H10)

SKU: MM-0070-P

200 µL

OVERVIEW

Clonality:

Monoclonal

Host:

Mouse

Reactivity:

Human

Application:

WB, IHC, IP, IF, FC

Target:

Misfolded SOD1

Target background:

Superoxide dismutase 1 (SOD1) is a soluble cytoplasmic and mitochondrial intermembrane space protein. SOD1 binds copper and zinc ions and is one of three isozymes responsible for destroying free superoxide radicals in the body. Mutations in SOD1 cause familial amyotrophic lateral sclerosis type 1 (ALS1). These mutations have been linked to accumulation of harmful superoxide radicals, promotion of apoptosis, formation of aggregates of misfolded superoxide dismutase which are toxic and the continued stimulation of nerve cells that causes them to burn out and die.

Target alias:

Superoxide dismutase [Cu-Zn], Superoxide dismutase 1, hSOD1, SOD1

Immunogen:

Recombinant human SOD1 G93A APO

Specificity:

The antibody recognizes misfolded forms of mutant human SOD1 protein. IP: wt, G93A, D90A, G85R, G127X, and G37R; WB (denatured): wt, D90A, G85R, G127X and G37R; WB (native): G93A; IF: G93A, G85R, G127X and G37R; Flow Cytometry: G93A.

Clone ID:

B8H10

Isotype:

IgG1

Preservative:

None

Format:

Lyophilized protein G purified in PBS pH7.4

Recommend starting dilution:

If reconstituted with deionized water in 250 μ L: IF 1:50 to 1:500; WB 1:250; IP 6 μ L / 40 μ L (Protein G beads / 300 μ g of protein lysate). Optimal dilution has to be determined by the user.

Limitations:

Research Use Only

References:

- 1.-Wiesner D - Reversible induction of TDP-43 granules in cortical neurons after traumatic injury.
- 2.-Da Cruz S - Misfolded SOD1 is not a primary component of sporadic ALS.
- 3.-Debye B - Neurodegeneration and NLRP3 inflammasome expression in the anterior thalamus of SOD1(G93A) ALS mice.
- 4.-Pickles S - ALS-linked misfolded SOD1 species have divergent impacts on mitochondria.
- 5.-Ferraiuolo L - Oligodendrocytes contribute to motor neuron death in ALS via SOD1-dependent mechanism.
- 6.-Kim SH - Bee venom effects on ubiquitin proteasome system in hSOD1(G85R)-expressing NSC34 motor neuron cells.
- 7.-Gros-Louis F - Intracerebroventricular infusion of monoclonal antibody or its derived Fab fragment against misfolded forms of SOD1 mutant delays mortality in a mo...
- 8.-Parone PA - Enhancing mitochondrial calcium buffering capacity reduces aggregation of misfolded SOD1 and motor neuron cell death without extending survival in ...
- 9.-Pickles S - Mitochondrial damage revealed by immunoselection for ALS-linked misfolded SOD1.
- 10.-Roberts BR - Oral treatment with Cu(II)(atsm) increases mutant SOD1 in vivo but protects motor neurons and improves the phenotype of a transgenic mouse model of...
- 11.-Patel P - Adeno-associated virus-mediated delivery of a recombinant single-chain antibody against misfolded superoxide dismutase for treatment of amyotrophic...
- 12.-Crisp MJ - In vivo kinetic approach reveals slow SOD1 turnover in the CNS.
- 13.-Nizzardo M - Morpholino-mediated SOD1 reduction ameliorates an amyotrophic lateral sclerosis disease phenotype.
- 14.-Leyton-Jaimes MF - Endogenous macrophage migration inhibitory factor reduces the accumulation and toxicity of misfolded SOD1 in a mouse model of ALS.
- 15.-Getter T - A chemical chaperone-based drug candidate is effective in a mouse model of amyotrophic lateral sclerosis (ALS).

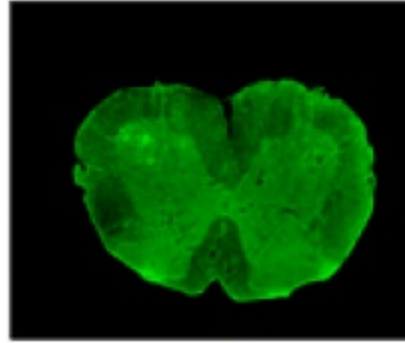
Storage:

Lyophilized antibodies can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage (2 years). To avoid freeze-thaw cycles, reconstituted antibodies should be aliquoted before freezing for long-term (1 year) storage (-80°C) or kept at 4°C for short-term usage (2 months). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made with the assay buffer. After the maximum long-term storage period (2 years lyophilized or 1 year reconstituted) antibodies should be tested in your assay with a standard sample to verify if you have noticed any decrease in their efficacy.

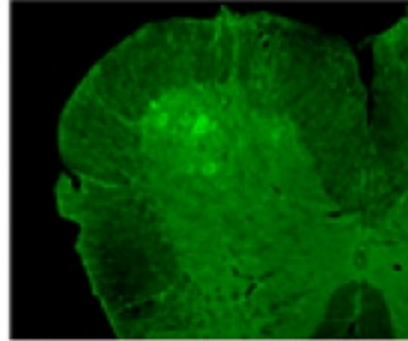
Image:

B8H10

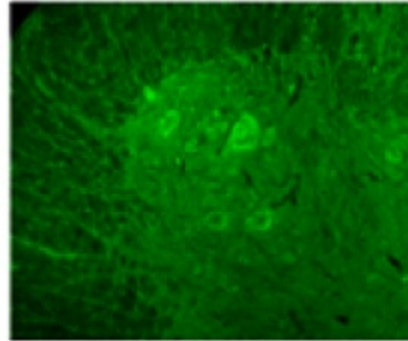
G93A Sc
P75 (5x)



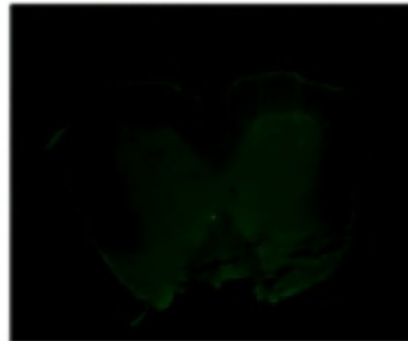
G93A Sc
P75 (10x)



G93A Sc
P75 (20x)



Tg-hWTov Sc
P75 (5x)



The spinal cord sections of transgenic mice SOD1G93A show the detection of misfolded SOD1 in the motor neurons. This immunodetection does not appear in the transgenic mice that reproduce normal human SOD1 (Tg-hWTov Sc). MM-0070-P: 1:100

