Cu/Zn SOD polyclonal antibody

SOD (Superoxide dismutase) is responsible for the elimination of cytotoxic active oxygen by catalyzing the dismutation of the superoxide radical to oxygen and hydrogen peroxide. There are three SOD isoenzymes in mammalian cells, they are: EC SOD (extracellular SOD), Cu/Zn SOD (copper and zinc-containing SOD) and Mn SOD (manganese-containing SOD).

This antibody is covered by our Worry-Free Guarantee.

Citations: 101 View Online »

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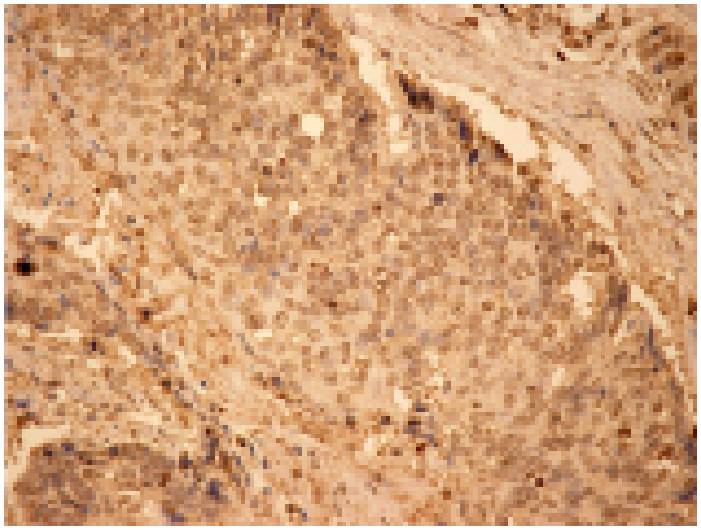
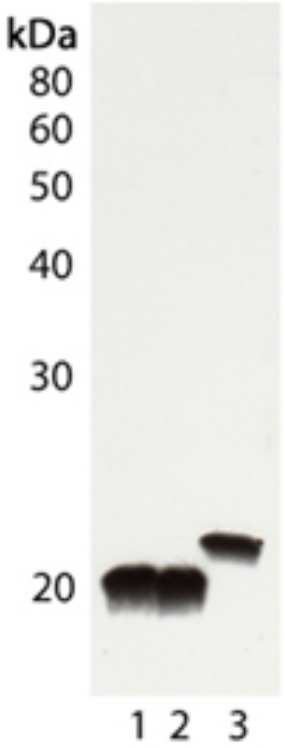
ADI-SOD-100-J	1mg
ADI-SOD-100-D	50µg
ADI-SOD-100-F	200µg

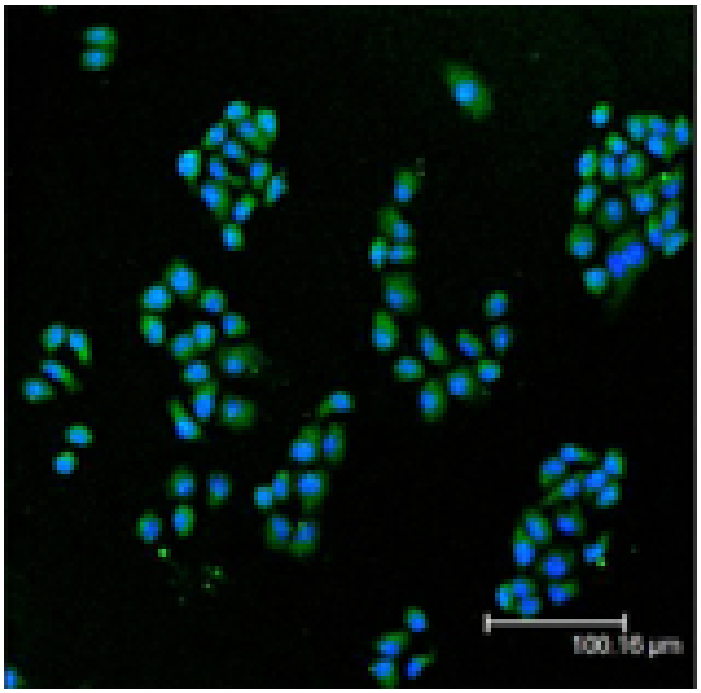
Manuals, SDS & CofA View Online »



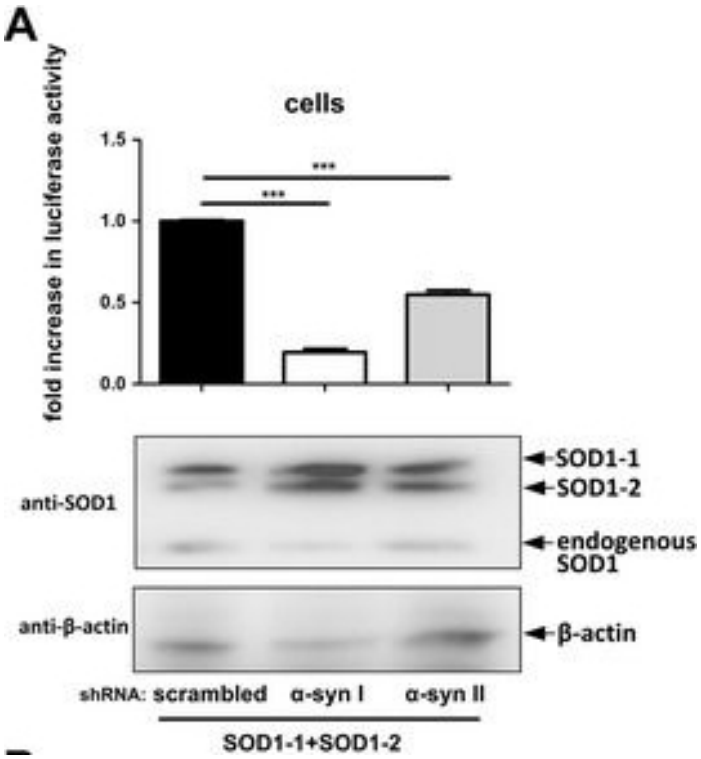
Immunohistochemistry analysis of human heart tissue stained with Cu/Zn SOD, pAb at 10µg/ml.



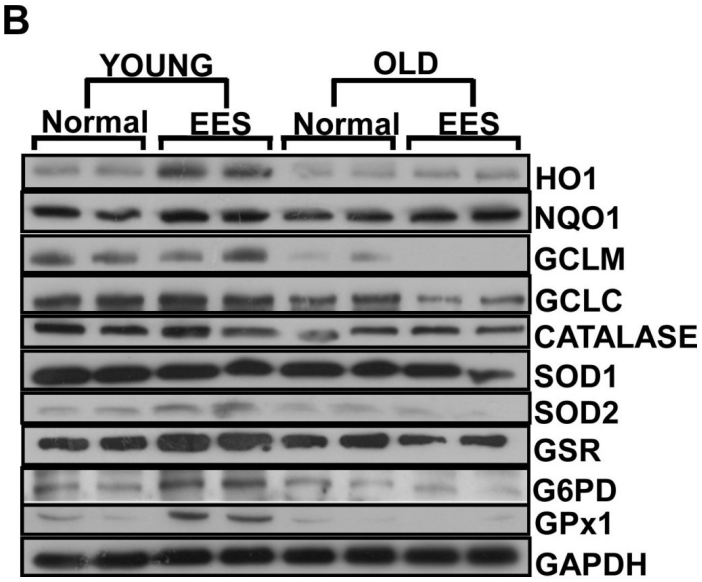
Western blot analysis of Cu/Zn SOD, pAb (Prod. No. ADI-SOD-100): Lane 1: Rat liver tissue lysate, Lane 2: Mouse liver tissue lysate, Lane 3: HeLa cell lysate (Prod. No. ADI-LYC-HL100).



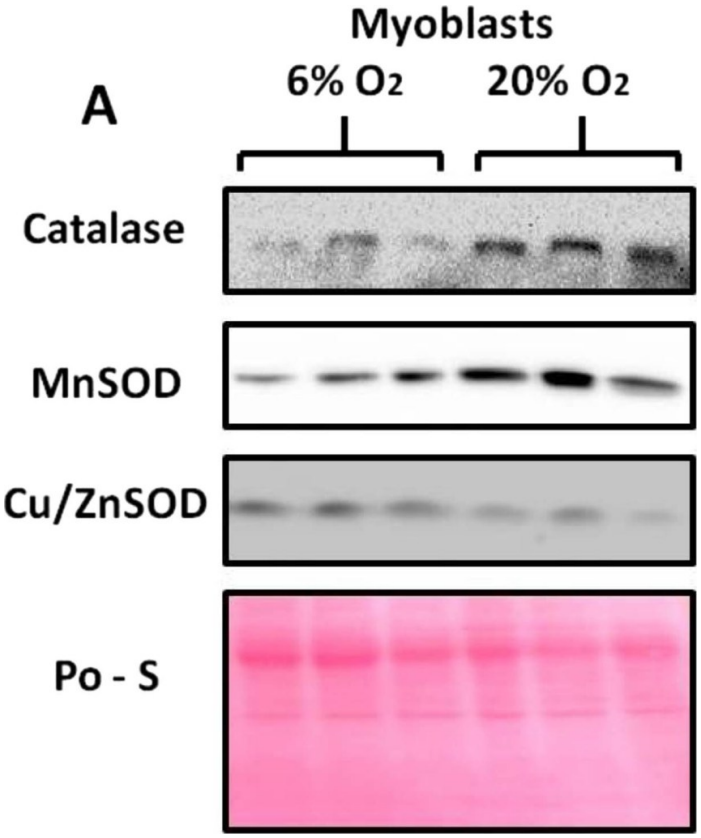
Immunofluorescent analysis (confocal) staining of HeLa cells using Cu/Zn SOD pAb (green); nuclei are stained in blue pseudocolor using DRAQ5.



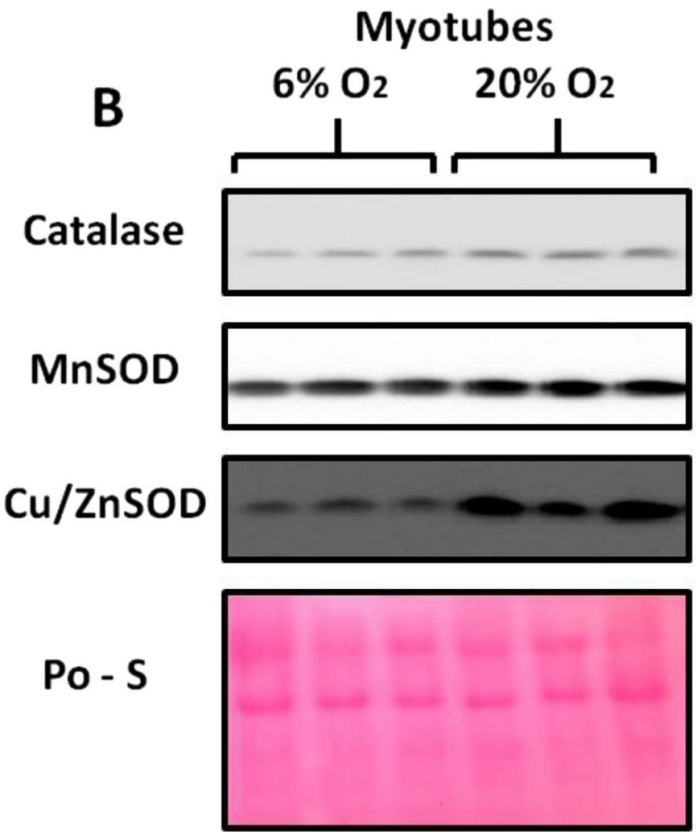
α-synuclein increases SOD1 oligomerization. a Luciferase activity and representative western blot of H4 cells (18 µg protein/lane) and b luciferase activity of conditioned medium of scrambled-shRNA stabile H4 cell line and two α-synuclein-shRNA stabile H4 cell lines (α-syn I, α-syn II) co-transfected with SOD1-1 and SOD1-2. Figures show pooled data from 4 independent experiments after normalization to respective mean luciferase activity of scrambled-shRNA cells (two tailed, unpaired student's t-test, n = 8-11). c Luciferase activity measurement and representative western blot (5 µg protein/lane) of transfected H4 cells incubated with 7 µM recombinant α-synuclein or solvent control PBS. Data from 3 independent experiments were pooled after normalization to the respective PBS control (two tailed, unpaired student's t-test, n = 10-12). (n.s. = not significant, * $p < 0,05$, *** $p < 0,0005$)



Immunoblot analyses of protein expression for Nrf2 and antioxidant enzymes.A. Analysis of nuclear Nrf2 in young and old mice subjected to EES. In sedentary mice, Nrf2 protein levels were decreased significantly in young versus old mice. EES exacerbated the decrease of nuclear Nrf2 in old mice. Blots/values represent n = 4–6 from each group. *p<0.05 between young vs. old and #p<0.05-between basal vs. EES. (B) Representative immunoblots of cytosolic extracts from the hearts of young and old mice under basal conditions and following EES. Protein blots were probed with anti-HO1, NQO1, GCLM, GCLC, Catalase, SOD1, SOD2, GSR, G6PD, GPX1 and GAPDH. Individual lanes indicate a single animal. Densitometry analysis of respective protein signals was performed using Image-J and expressed as relative intensity units calculated as mean values of young and old, *p<0.05. Individual lanes indicate each animal (n = 6). #p<0.05-between basal and EES.



Representative western blots of catalase, MnSOD and Cu/ZnSOD in (A) myoblasts and (B) myotubes grown in 20% or 6% O2 environments. Ponceau S staining (Po-S) shows equal amount of protein loading.



Representative western blots of catalase, MnSOD and Cu/ZnSOD in (A) myoblasts and (B) myotubes grown in 20% or 6% O2 environments. Ponceau S staining (Po-S) shows equal amount of protein loading.

Image collected and cropped by CiteAb under a CC-BY license from the following publication: Manipulation of environmental oxygen modifies reactive oxygen and nitrogen species generation during myogenesis. *Redox Biol* (2016)

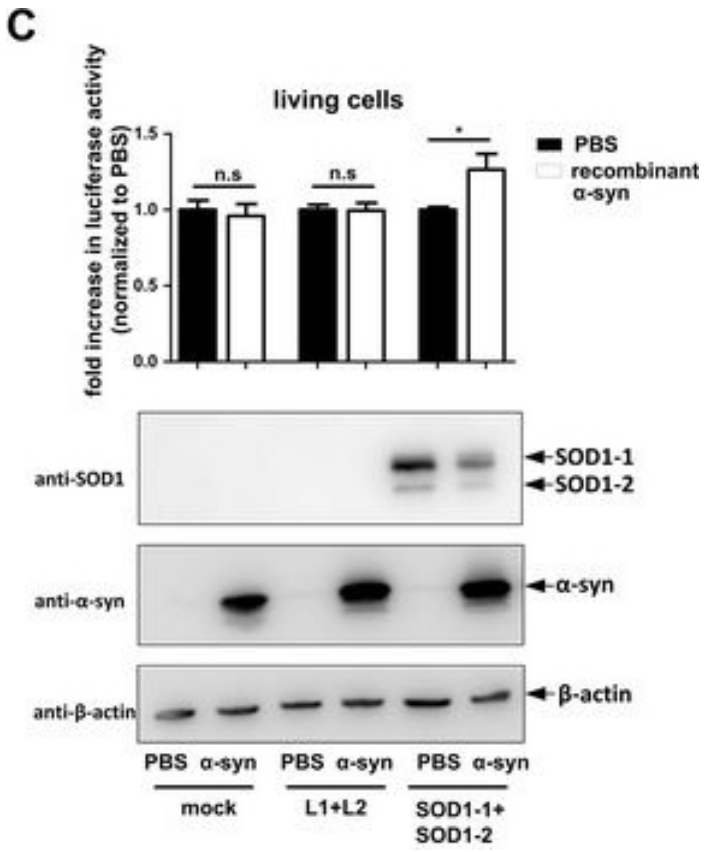


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Image collected and cropped by CiteAb under a CC-BY license from the following publication: α-synuclein interacts with SOD1 and promotes its oligomerization. *Mol Neurodegener* (2015)

Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Superoxide Dismutase (Cu-Zn), Superoxide dismutase 1, SOD1
Application	IF, IHC (PS), IP, WB
Application Notes	Detects a band of ~23kDa (human) or ~19kDa (mouse and rat) by Western blot.
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
Host	Rabbit
Immunogen	Native human Cu/Zn SOD.
Purity Detail	Protein A affinity purified.
Recommendation Dilutions/Conditions	Immunofluorescence (1:50-1:200)Immunohistochemistry (paraffin sections, 1:50)Western Blot (1:1,000, ECL)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Clam, Human, Mouse, Rat
Technical Info / Product Notes	**Cited samples:** *For an overview on cited samples please click here.*
UniProt ID	P00441

Worry-free Guarantee

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