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).

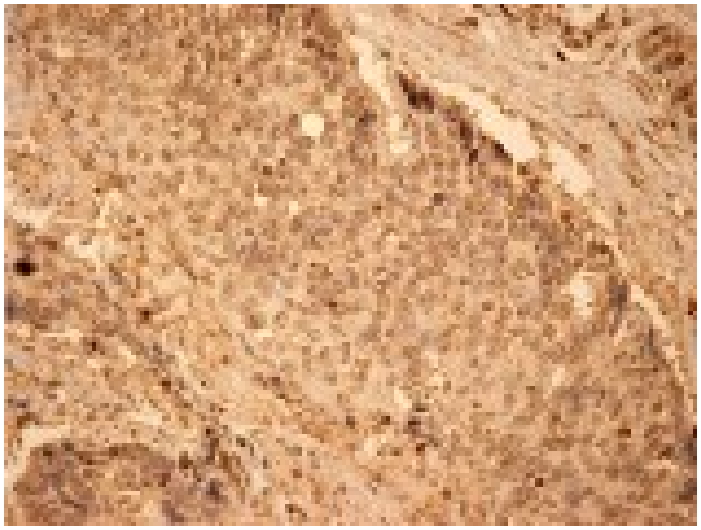
This antibody is covered by our Worry-Free Guarantee.

Citations: 101 View Online »

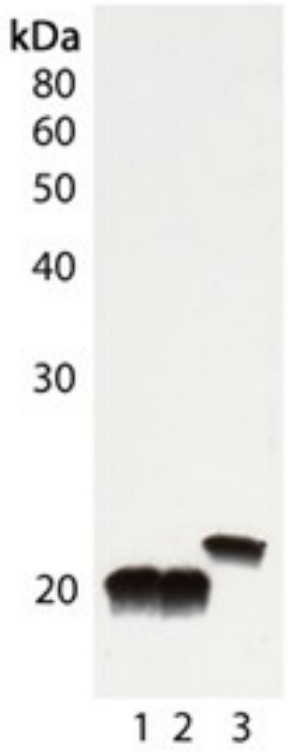
Ordering Information Order Online »

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

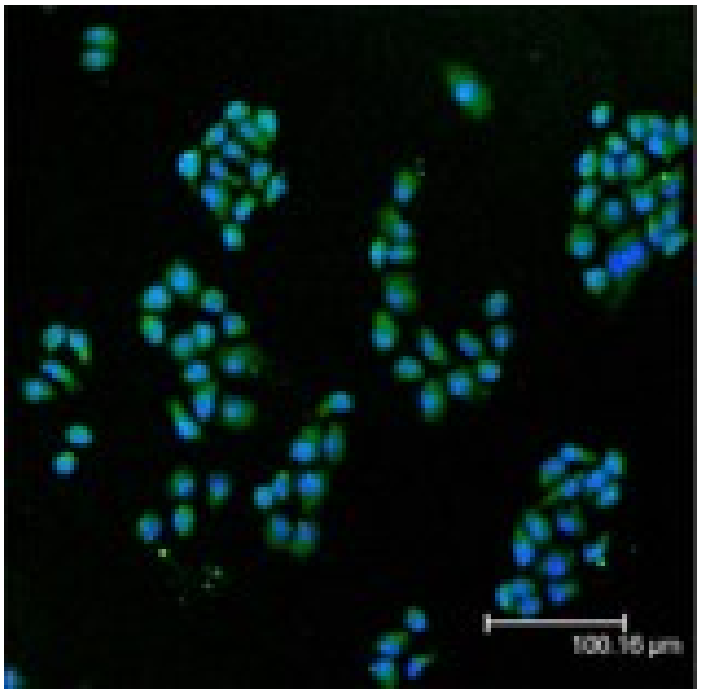
Manuals, SDS & CofA View Online »



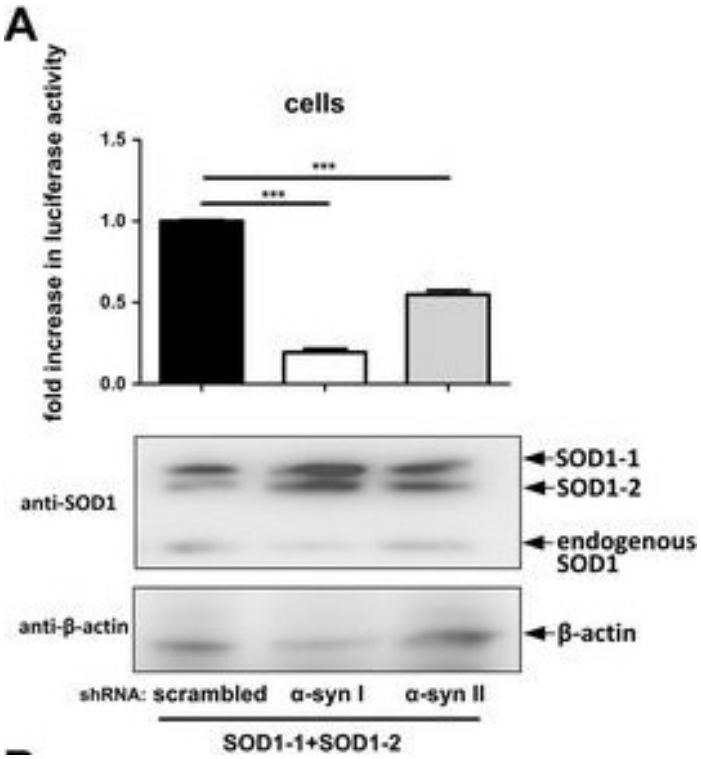
Immunohistochemistry analysis of human heart tissue stained with Cu/Zn SOD, pAb at 10µg/ml.



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).

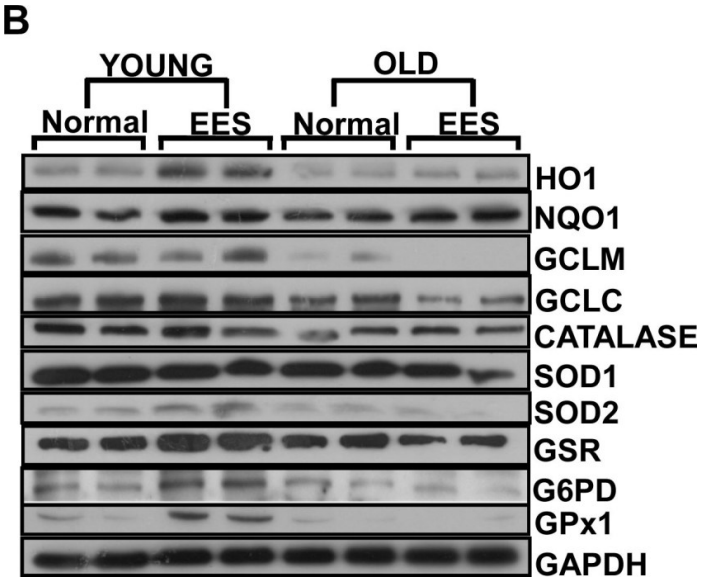


Immunofluorescent analysis (confocal) staining of HeLa cells using Cu/Zn SOD pAb (green); nuclei are stained in blue pseudocolor using DRAQ5.



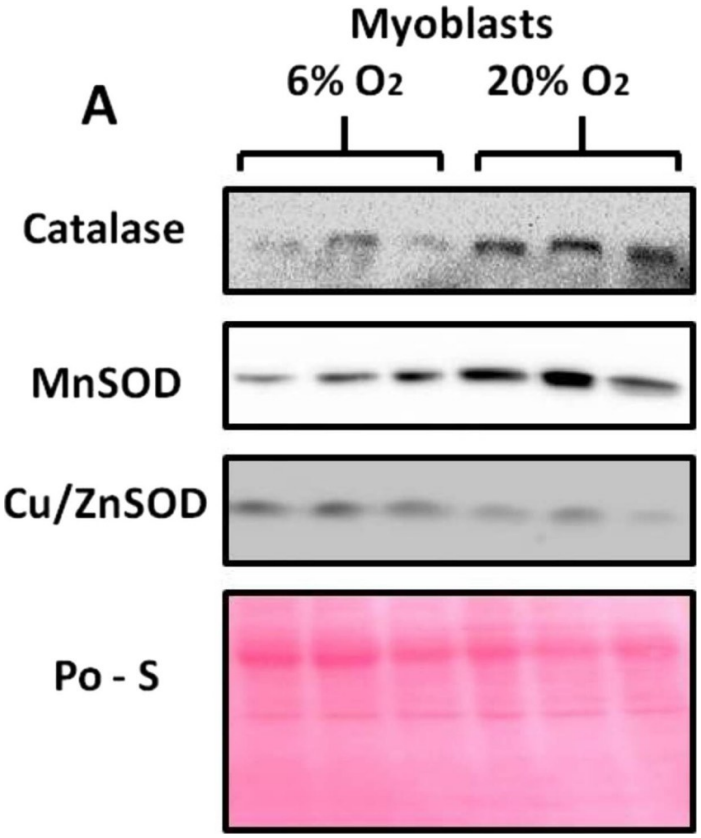
α-synuclein increases SOD1 oligomerization. a Luciferase activity and representative western blot of H4 cells (18 µg protein/lane) and b luciferase activity of conditioned medium of scrambled-shRNA stabile H4 cell line and two α-synuclein-shRNA stabile H4 cell lines (α-syn I, α-syn II) co-transfected 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, * $p < 0,05$, *** $p < 0,0005$)

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)



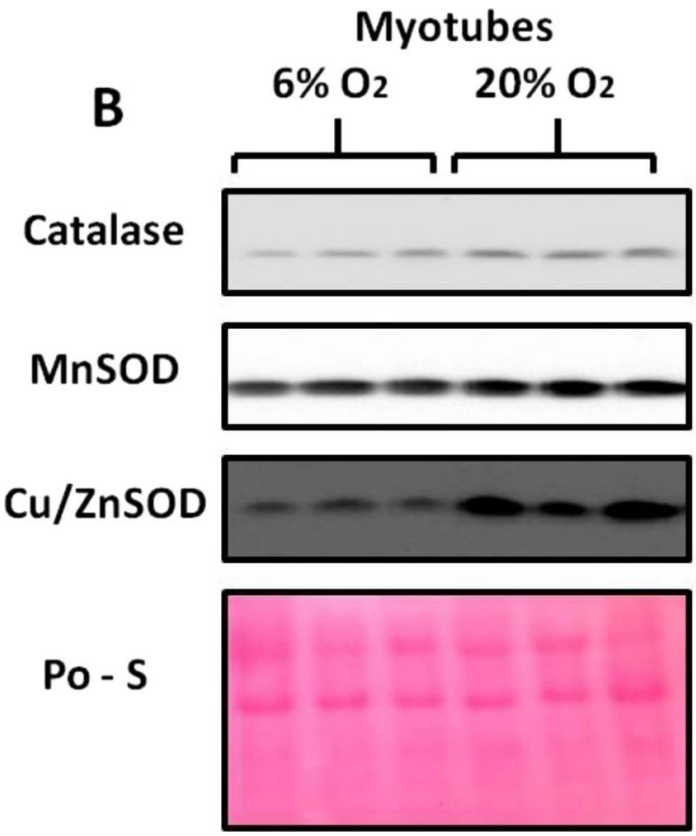
Immunoblot analyses of protein expression for Nrf2 and antioxidant enzymes.A. Analysis of nuclear Nrf2 in young and old mice subjected to EES. In sedentary mice, Nrf2 protein levels were decreased significantly in young versus old mice. EES exacerbated the decrease of nuclear Nrf2 in old mice. Blots/values 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.

Image collected and cropped by CiteAb under a CC-BY license from the following publication: Impaired transcriptional activity of Nrf2 in age-related myocardial oxidative stress is reversible by moderate exercise training. *PLoS One* (2012)



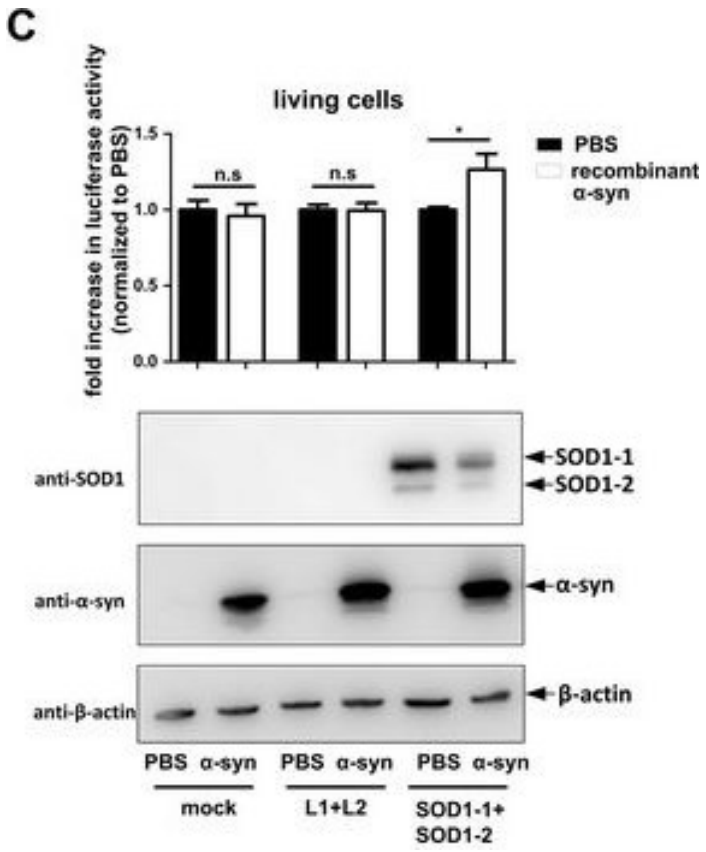
Representative western blots of catalase, MnSOD and Cu/ZnSOD in (A) myoblasts and (B) myotubes grown in 20% or 6% O2 environments. Ponceau S staining (Po-S) shows equal amount of protein loading.

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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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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ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

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