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ARG54937
anti-SOD2 antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SOD2
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SOD2
Species	Human
Immunogen	Recombinant protein of Human SOD2 (NP_000627.2)
Conjugation	Un-conjugated
Alternate Names	MNSOD; Superoxide dismutase [Mn], mitochondrial; IPOB; EC 1.15.1.1; MVCD6

Application Instructions

Application table

Application	Dilution
ICC/IF	1:50 - 1:100
IHC-P	1:50 - 1:100
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

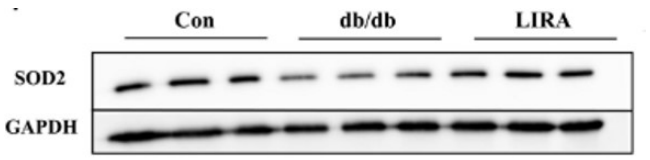
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	SOD2
Gene Full Name	superoxide dismutase 2, mitochondrial
Background	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]
Function	Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems. [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30274 SOD1 and SOD2 Antibody Duo Related products: SOD2 antibodies; SOD2 Duos / Panels; Anti-Rabbit IgG secondary antibodies;
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	25 kDa
PTM	Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity. Acetylation at Lys-122 decreases enzymatic activity. Deacetylated by SIRT3 upon exposure to ionizing radiations or after long fasting (By similarity).

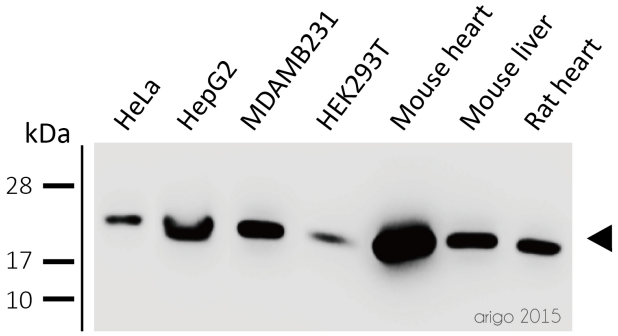
Images



ARG54937 anti-SOD2 antibody WB image

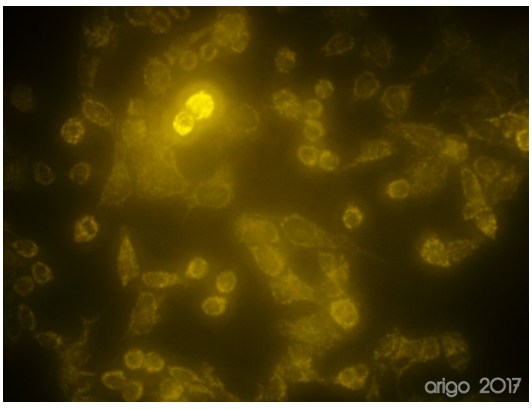
Western blot: Mouse hippocampal stained with ARG54937 anti-SOD2 antibody.

From Ji-Ren An et al. Front Cell Neurosci. (2023), doi: 10.3389/fncel.2023.1136070, Fig. 7F.



ARG54937 anti-SOD2 antibody WB image

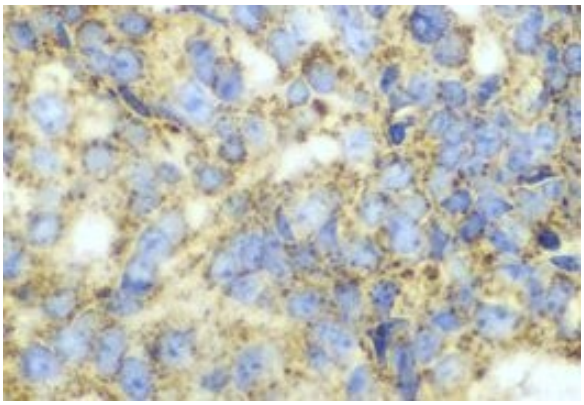
Western blot: 30 µg of HeLa, HepG2, MDAMB231, HEK293T, Mouse heart, Mouse liver, and Rat heart lysates stained with ARG54937 anti-SOD2 antibody at 1:500 dilution.



ARG54937 anti-SOD2 antibody ICC/IF image

Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG54937 anti-SOD2 antibody (orange) at 1:10 dilution.

Secondary antibody: ARG21917 Goat anti-Rabbit IgG antibody (TRITC)



ARG54937 anti-SOD2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human oophoroma stained with ARG54937 anti-SOD2 antibody at 1:100 dilution (400x lens).