

ARG22295
anti-SOD2 antibodyPackage: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SOD2
Tested Reactivity	Hu, Ms, Rat, Bov, Chk, Dm, Dog, Gpig, Hm, Invt, Mk, Pig, Rb, Sheep, Xenopus laevis
Tested Application	ELISA, ICC/IF, IHC-P, IP, WB
Specificity	Detects ~25kDa.
Host	Rabbit
Clonality	Polyclonal
Target Name	SOD2
Species	Rat
Immunogen	Rat SOD2
Conjugation	Un-conjugated
Alternate Names	MNSOD; Superoxide dismutase [Mn], mitochondrial; IPOB; EC 1.15.1.1; MVCD6

Application Instructions

Application table	Application	Dilution
	ELISA	Assay-dependent
	ICC/IF	1:120
	IHC-P	Assay-dependent
	IP	Assay-dependent
	WB	1:5000

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

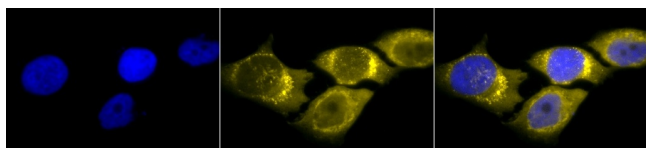
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS (pH 7.4), 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
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.

Bioinformation

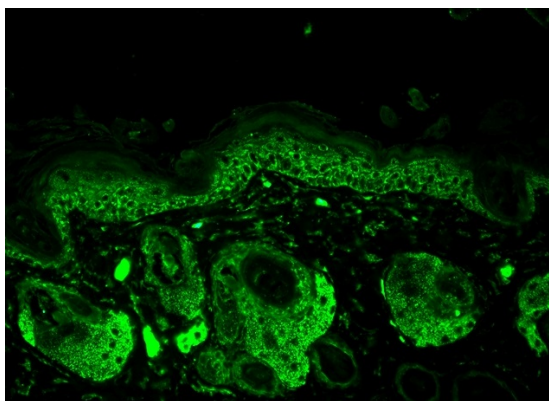
Gene Symbol	Sod2
Gene Full Name	superoxide dismutase 2, mitochondrial
Background	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts 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]
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).
Cellular Localization	Mitochondrion, Mitochondrion Matrix

Images



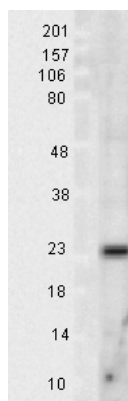
ARG22295 anti-Mn-SOD antibody ICC/IF image

Immunocytochemistry: 2% Formaldehyde (20 min at RT) fixed HeLa cells stained with ARG22295 anti-Mn-SOD antibody (yellow) at 1:120 dilution (12 hours at 4°C). Counterstain: DAPI (blue) nuclear stain at 1:40000 for 120 min at RT. Magnification: 100x. Left: DAPI (blue) nuclear stain, Middle: Primary antibody, Right: Composite.



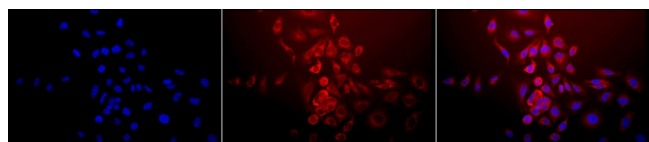
ARG22295 anti-Mn-SOD antibody IHC image

Immunohistochemistry: Bouin solution fixed Mouse backskin stained with ARG22295 anti-Mn-SOD antibody (green) at 1:100 dilution (1 hour).



ARG22295 anti-Mn-SOD antibody WB image

Western blot: Rat Tissue lysates stained with ARG22295 anti-Mn-SOD antibody at 1:1000 dilution.



ARG22295 anti-Mn-SOD antibody ICC/IF image

Immunocytochemistry: 2% Formaldehyde (20 min at RT) fixed HeLa cells stained with ARG22295 anti-Mn-SOD antibody (red) at 1:120 dilution (12 hours at 4°C). Counterstain: DAPI (blue) nuclear stain at 1:40000 for 120 min at RT. Magnification: 20x. Left: DAPI (blue) nuclear stain, Middle: Primary antibody, Right: Composite.