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ARG54988
anti-SOD2 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes SOD2
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	37CT127.5.11.6
Isotype	IgG1, kappa
Target Name	SOD2
Immunogen	Purified His-tagged SOD protein fragment.
Conjugation	Un-conjugated
Alternate Names	MNSOD; Superoxide dismutase [Mn], mitochondrial; IPOB; EC 1.15.1.1; MVCD6

Application Instructions

Application table

Application	Dilution
IHC-P	Assay-dependent
WB	1:2000

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

Positive Control: Human heart

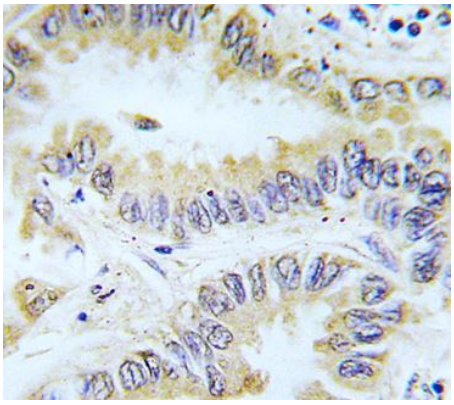
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
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 or below. 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

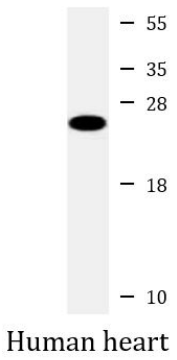
Database links	GeneID: 6648 Human Swiss-port # P04179 Human
Gene Symbol	SOD2
Gene Full Name	superoxide dismutase 2, mitochondrial
Background	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion 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]
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).
Cellular Localization	Mitochondrion matrix.

Images



ARG54988 anti-SOD2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human lung carcinoma tissue stained with ARG54988 anti-SOD2 antibody.



ARG54988 anti-SOD2 antibody WB image

Western blot: 20 µg of Human heart lysate stained with ARG54988 anti-SOD2 antibody at 1:2000 dilution.