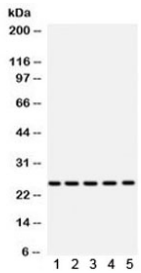
SOD2 Antibody (R31882)

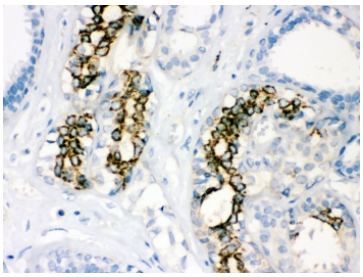
Catalog No.	Formulation	Size
R31882	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

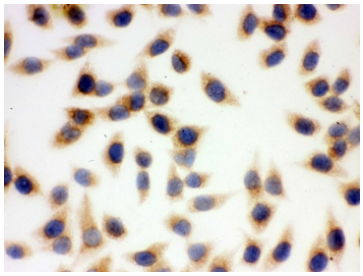
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	P04179
Localization	Cytoplasmic
Applications	Western Blot : 0.1-0.5ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml Immunocytochemistry (FFPE) : 0.5-1ug/ml
Limitations	This SOD2 antibody is available for research use only.



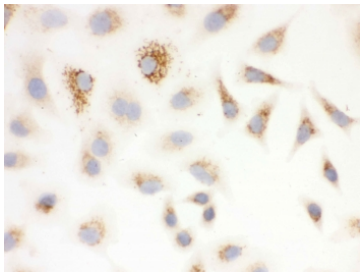
Western blot testing of mouse 1) testis, 2) lung, 3) heart, 4) liver and 5) human HepG2 lysate with SOD2 antibody. Expected molecular weight ~25 kDa.



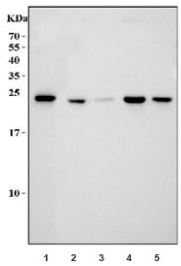
IHC testing of FFPE human breast cancer with SOD2 antibdoy. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



ICC testing of FFPE human SMMC-7721 cells with SOD2 antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



ICC testing of FFPE human A549 cells with SOD2 antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to testing.



Western blot testing of mouse 1) human HepG2, 2) rat liver, 3) rat lung, 4) mouse liver and 5) mouse lung lysate with SOD2 antibody. Expected molecular weight ~25 kDa.

Description

SOD2 (Superoxide Dismutase 2), also called IPO-B or MNSOD, is a mitochondrial matrix enzyme that scavenges oxygen radicals produced by the extensive oxidation-reduction and electron transport reactions occurring in mitochondria. This gene is a member of the iron/manganese superoxide dismutase family. Using a somatic cell hybrid panel containing different segments of chromosome 6, they demonstrated that SOD2 is located in the region 6q25.3-qter which, together with the FISH analysis, indicated that SOD2 is in the distal portion of 6q25. The SOD2 gene encodes an intramitochondrial free radical scavenging enzyme that is the first line of defense against superoxide produced as a byproduct of oxidative phosphorylation. Adeno-associated viral delivery of the human SOD2 gene resulted in suppression of optic nerve degeneration and rescue of retinal ganglion cells. The findings suggested that reactive oxygen species contributed to retinal cell death and optic nerve damage in mice with complex I deficiency, and that expression of SOD2 attenuated the disease process.

Application Notes

Optimal dilution of the SOD2 antibody should be determined by the researcher.

Immunogen

Amino acids QYKNVRPDYLKAIWNVINWENVTERYMACKK of human SOD2 were used as the immunogen for the SOD2

antibody.

Storage

After reconstitution, the SOD2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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