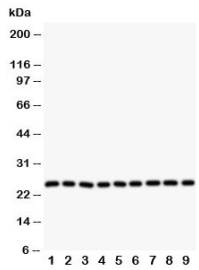
SOD2 Antibody Superoxide Dismutase 2 (R30869)

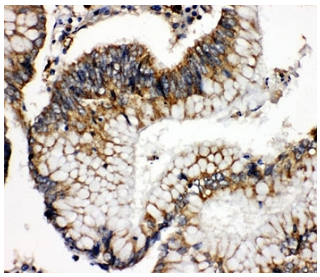
Catalog No.	Formulation	Size
R30869	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

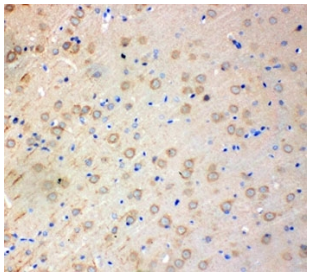
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P04179
Localization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



Western blot testing of SOD2 antibody and Lane 1: rat liver; 2: (r) intestine; 3: (r) lung; 4: (r) heart; 5: human SMMC-7721; 6: (h) HeLa; 7: (h) COLO320; 8: (h) SW620; 9: (h) A549 cell lysate. Predicted molecular weight ~ 25 kDa.



IHC-P: SOD2 antibody testing of human intestinal cancer tissue



IHC-P: SOD2 antibody testing of rat brain tissue

Description

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 the enzyme is in the distal portion of 6q25. The 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 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

The stated application concentrations are suggested starting amounts. Titration of the SOD2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the N-terminus of human SOD2 (QIMQLHHSKHHAAYVNNL) was used as the immunogen for this SOD2 antibody (100% mouse homology).

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.