Recombinant SOD2 Monoclonal Antibody

catalog number: AN300260P

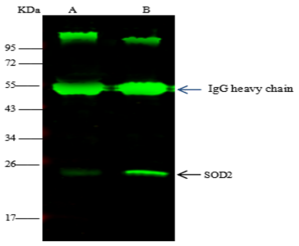
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human
Immunogen	Recombinant Human SOD2 protein
Host	Rabbit
Isotype	IgG
Clone	11A12
Purification	Protein A
Buffer	0.2 μm filtered solution in PBS

Applications	Recommended Dilution
WB	1:2000-1:10000
IP	1-4 μL/mg of lysate

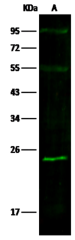
Data



Immunoprecipitation analysis using 2 μL anti-SOD2 Monoclonal Antibody and 15 μl of 50 % Protein G agarose. Western blot was performed from the immunoprecipitate using SOD2 Monoclonal Antibody at a dilution of 1:100. Lane A:0.5 mg Hela Whole Cell Lysate, Lane B:0.5 mg HepG2 Whole Cell Lysate

Observed-MW:25 kDa

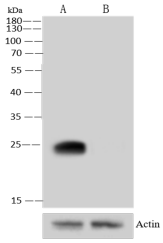
Calculated-MW:25 kDa



Western Blot with SOD2 Monoclonal Antibody at dilution of 1:10000. Lane A: Hela Whole Cell Lysate, Lysates/proteins at 30 μg per lane.

Observed-MW:25 kDa

Calculated-MW:25 kDa



Western Blot with SOD2 Monoclonal Antibody at dilution of 1:500. Lane A: Hela Whole Cell Lysate, Lane B: SOD2 konckout Hela Whole Cell Lysate, Lysates/proteins at 30 μg per lane.

Observed-MW:25 kDa

Calculated-MW:25 kDa

Preparation & Storage

Storage	This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

Superoxide Dismutases (SODs), originally identified as Indophenoloxidases (IPOs), are enzymes that catalyze the conversion of naturally-occuring but harmful superoxide radicals into molecular oxygen and hydrogen peroxide. Superoxide Dismutases 2 (SOD2), also known as Manganese (Mn) SOD, mitochondrial SOD, and IPO-B, is an intramitochondrial 22 kDa homotetramer. Each SOD2 monomer binds one Mn2+ ion. Three isozymes of SOD have been identified and are functionally related but have very modest sequence homology. SOD2 shares only 23% and 17% sequence identity with SOD1 and SOD3, respectively. SOD2 is, however, well conserved from species to species and shares 90% and 87% homology with mouse and rat SOD2, respectively. Oxidative stress has been implicated in many diseases and the chief source of reactive oxygen species within the cell is the mitochondrion. SOD2 is a free radical scavenging enzyme that protects against damage from superoxide produced as a byproduct of oxidative phosphorylation. SOD2 is required for normal biologic function of tissues by maintaining the integrity of mitochondrial enzymes susceptible to inactivation by superoxide. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer.

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