sod2 Antibody

Catalog Number:E18-5144

Amount:100ul

Applications:WB;IHC;IF;ELISA

Reactivity: Human;Mouse;Rat

Gene Name:SOD2

Protein Name: Superoxide dismutase [Mn] mitochondrial

Human Gene Id:6648

Human Swiss Prot No:P04179

Mouse Gene Id:20656

Mouse Swiss Prot No:P09671

Rat Gene Id:24787

Rat Swiss Prot No:P07895

Immunogen: The antiserum was produced against synthesized peptide derived from the Internal region of human SOD2. AA range:91-140

Specificity:SOD-2 Polyclonal Antibody detects endogenous levels of SOD-2 protein.

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit,IgG

Dilution:IHC: 100-300.WB 1:500 - 1:2000. ELISA: 1:10000. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration:1 mg/ml

Storage Stability:-15°C to -25°C/1 year(Do not lower than -25°C)

Other Name:SOD2;Superoxide dismutase [Mn], mitochondrial

Observed Band(KD):24kD

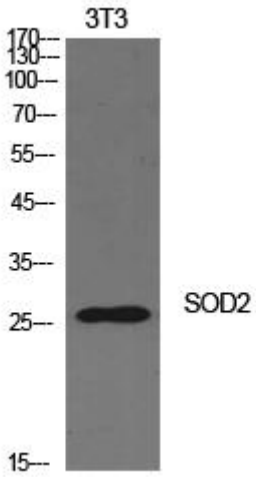
Background: This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 1. [provided by RefSeq, Apr 2016]

Function:catalytic activity:2 superoxide + 2 H(+) = O(2) + H(2)O(2).,cofactor:Binds 1 manganese ion per subunit.,disease:Genetic variation in SOD2 is associated with susceptibility to diabetic nephropathy [MIM:612634]; also called susceptibility to microvascular complications of diabetes type 6 (MVCD6). Diabetic nephropathy is a kidney disease and resultant kidney function impairment due to the long standing effects of diabetes on the microvasculature (glomerulus) of the kidney. Features include increased urine protein and declining kidney function.,function:Destroys radicals which are normally produced within the cells and which are toxic to biological systems.,online information:Superoxide dismutase entry,online information:The Singapore human mutation and polymorphism database,

PTM:Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity.

Subcellular Location: Mitochondrion matrix.

Expression: Brain,Colon,Heart,Liver,Lung,Mammary carcinoma,Tongue.



Western Blot analysis of NIH-3T3 cells using SOD-2 Polyclonal Antibody at 1:1000. Secondary antibody was diluted at 1:20000.