SOD1 (ANT0013R) Rabbit mAb

CatalogNo: ANT8065 Recombinant

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat,	• WB,IHC,IF,IP,ELISA

MW	Isotype
• 23kD (Calculated) 15kD (Observed)	• IgG,Kappa

Recommended Dilution Ratios

IHC 1:100-1:5000
WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

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

Basic Information

Clonality	Monoclonal
Clone Number	ANT0013R

Target Information

Immunogen Information Specificity

Endogenous

Gene name SOD1

Protein Name Superoxide dismutase [Cu-Zn]

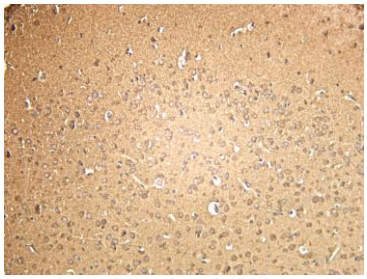
Organism	Gene ID	UniProt ID
Human	6647;	P00441;
Mouse	20655;	P08228;
Rat	24786;	P07632;

Cellular Localization Cytoplasm, Nucleus

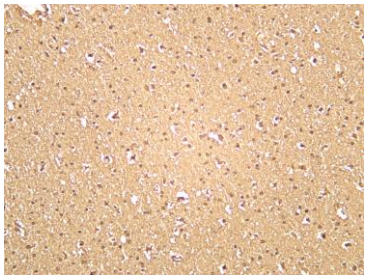
Tissue specificity Colon,Fetal brain cortex,Placenta,

Function Catalytic activity:2 superoxide + 2 H(+) = O(2) + H(2)O(2).,cofactor:Binds 1 copper ion per subunit.,cofactor:Binds 1 zinc ion per subunit.,Disease:Defects in SOD1 are the cause of amyotrophic lateral sclerosis type 1 (ALS1) [MIM:105400]. ALS1 is a familial form of amyotrophic lateral sclerosis, a neurodegenerative disorder affecting upper and lower motor neurons and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of cases leading to familial forms.,Function:Destroys radicals which are normally produced within the cells and which are toxic to biological systems.,miscellaneous:The protein (both wild-type and ALS1 variants) has a tendency to form fibrillar aggregates in the absence of the intramolecular disulfide bond or of bound zinc ions. These aggregates may have cytotoxic effects. Zinc binding promotes dimerization and stabilizes the native form.,online information:ALS genetic mutations db,online information:Superoxide dismutase entry,ANTM:Unlike wild-type protein, the pathogenics variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 are polyubiquitinated by RNF19A; which leads to their proteasomal degradation.,similarity:Belongs to the Cu-Zn superoxide dismutase family.,subunit:Homodimer. The pathogenics variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 interact with RNF19A, whereas wild-type protein does not.,

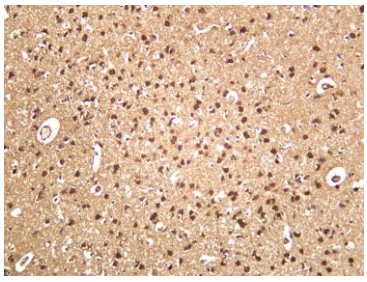
Validation Data



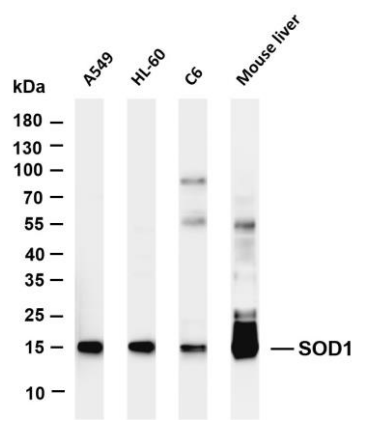
Mouse brain was stained with anti-SOD1 (ANT0013R) rabbit antibody



Human brain was stained with anti-SOD1 (ANT0013R) rabbit antibody



Rat brain was stained with anti-SOD1 (ANT0013R) rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SOD1 (ANT0013R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: HL-60 Lane 3: C6 Lane 4: Mouse liver Predicted band size: 23kDa Observed band size: 15kDa