

## SOD1 (PT0113R) PT™ Rabbit mAb

CatalogNo: YM8065 **Recombinant** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 16kDa (Calculated)  
15kD (Observed)

#### Isotype

- 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**

### Storage

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

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Basic Information

**Clonality** Monoclonal

**Clone Number** PT0113R

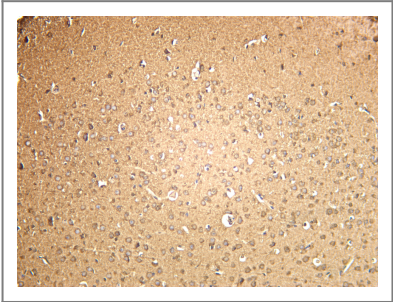
### Immunogen Information

**Specificity** Endogenous

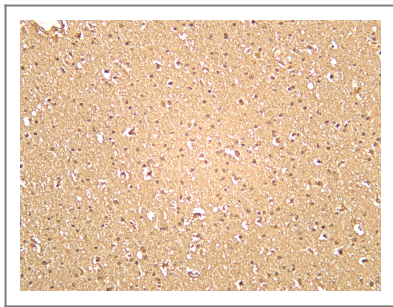
### Target Information

Gene name	SOD1		
Protein Name	Superoxide dismutase [Cu-Zn]		
	Organism	Gene ID	UniProt ID
	Human	<a href="#">6647;</a>	<a href="#">P00441;</a>
	Mouse	<a href="#">20655;</a>	<a href="#">P08228;</a>
	Rat	<a href="#">24786;</a>	<a href="#">P07632;</a>
Cellular Localization	Cytoplasm, Nucleus		
Tissue specificity	Colon,Fetal brain cortex,Placenta,		
Function	<p>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,PTM: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.,</p>		

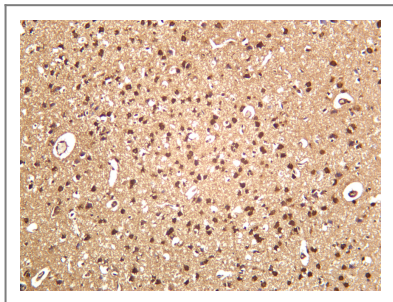
| Validation Data



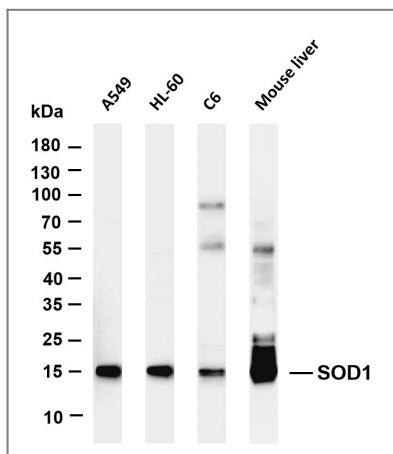
Mouse brain was stained with anti-SOD1 rabbit antibody



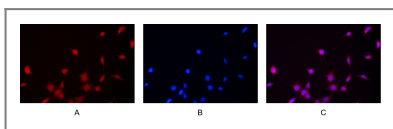
Human brain was stained with anti-SOD1 rabbit antibody



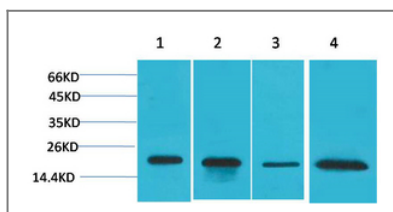
Rat brain was stained with anti-SOD1 rabbit antibody



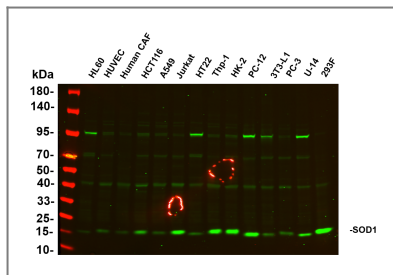
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SOD1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: HL-60 Lane 3: C6 Lane 4: Mouse liver Predicted band size: 23kDa Observed band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



Immunofluorescence analysis of HEK293. Picture A: SOD1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Western blot analysis of 1) Hela, 2) MCF7, 3) Mouse Brain Tissue, 4) Rat Brain Tissue using SOD1 Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 16kDa Observed band size: 16kDa

## Contact information

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**SOD1 (PT0113R)**  
**PT™ Rabbit mAb**

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