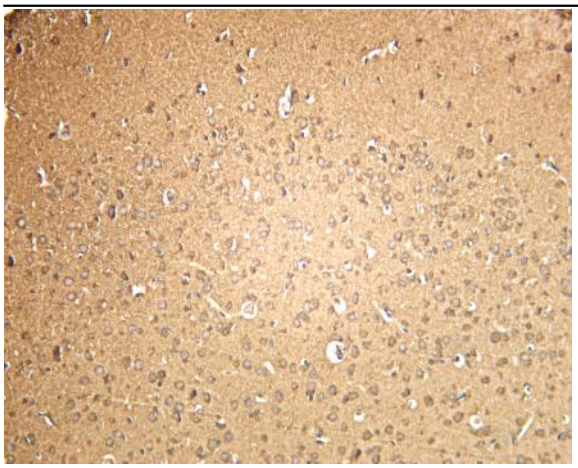
Best Tools for immunology Research

SOD1 (PT0113R) PT® Rabbit mAb

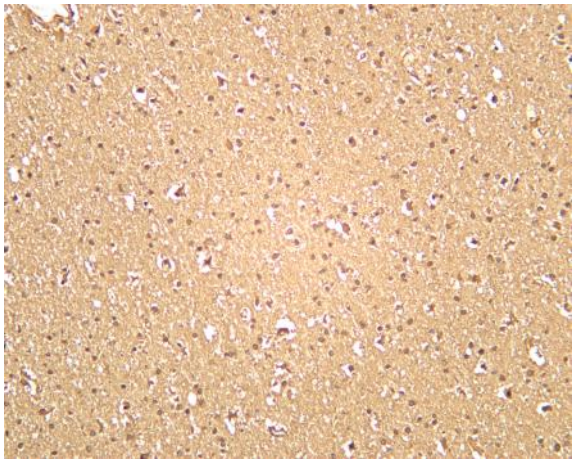
Catalog No :	YM8065
Reactivity :	Human; Mouse; Rat;
Applications :	WB;IHC;IF;IP;ELISA
Target :	SOD-1
Fields :	>>Peroxisome;>>Longevity regulating pathway - multiple species;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Chemical carcinogenesis - reactive oxygen species
Gene Name :	SOD1
Protein Name :	Superoxide dismutase [Cu-Zn]
Human Gene Id :	6647
Human Swiss Prot No :	P00441
Mouse Gene Id :	20655
Mouse Swiss Prot No :	P08228
Rat Gene Id :	24786
Rat Swiss Prot No :	P07632
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	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;

Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	23kD
Observed Band :	15kD
Cell Pathway :	Amyotrophic lateral sclerosis (ALS);Huntington's disease;Prion diseases;
Background :	The protein encoded by this gene binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occuring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis. Rare transcript variants have been reported for this gene. [provided by RefSeq, Jul 2008],
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
Subcellular Location :	Cytoplasm, Nucleus
Expression :	Colon,Fetal brain cortex,Placenta,

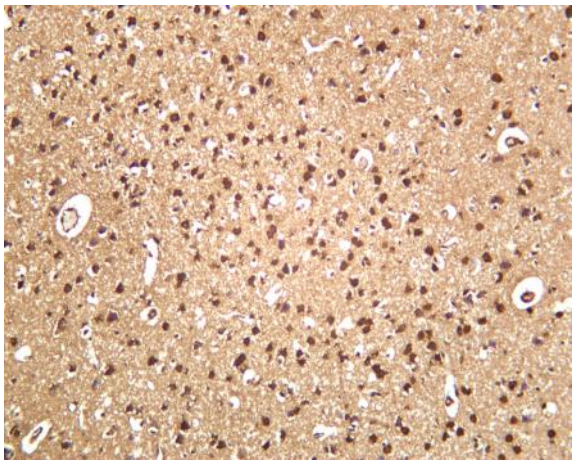
Products Images



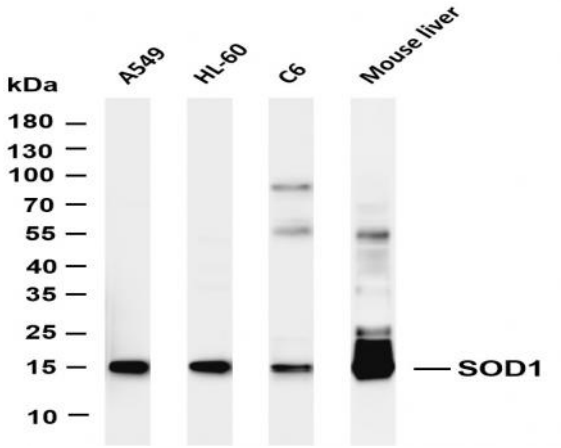
Mouse brain was stained with anti-SOD1 (PT0113R) rabbit antibody



Human brain was stained with anti-SOD1 (PT0113R) rabbit antibody



Rat brain was stained with anti-SOD1 (PT0113R) rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SOD1 (PT0113R) 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