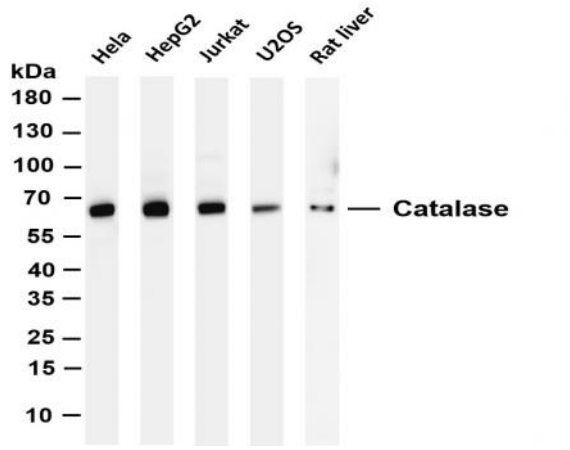
Best Tools for immunology Research

Catalase (PT0146R) PT® Rabbit mAb

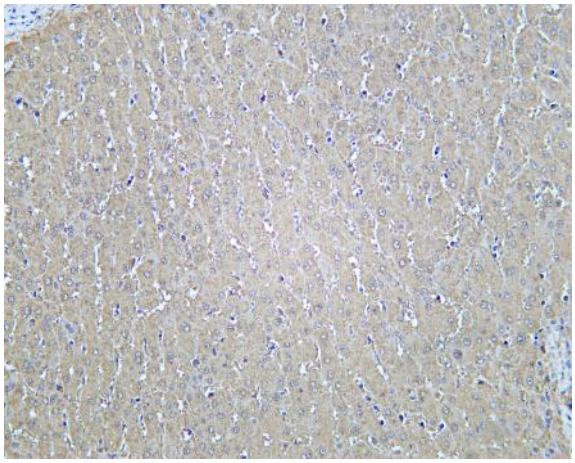
Catalog No :	YM8083
Reactivity :	Human;Mouse;Rat;
Applications :	WB;IHC;IF;IP;ELISA
Target :	Catalase
Fields :	>>Tryptophan metabolism;>>Glyoxylate and dicarboxylate metabolism;>>Metabolic pathways;>>Carbon metabolism;>>FoxO signaling pathway;>>Peroxisome;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Amyotrophic lateral sclerosis;>>Pathways of neurodegeneration - multiple diseases;>>Chemical carcinogenesis - reactive oxygen species
Gene Name :	CAT
Protein Name :	Catalase
Human Gene Id :	847
Human Swiss Prot No :	P04040
Mouse Swiss Prot No :	P24270
Specificity :	endogenous
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, rabbit, IgG, Kappa
Dilution :	IHC 1:200-1000,WB 1:1000-5000,IF 1:200-1000,ELISA 1:5000-20000,IP 1:50-200
Purification :	Protein A
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight :	60kD
Observed Band :	60kD
Cell Pathway :	Tryptophan metabolism;Methane metabolism;Amyotrophic lateral sclerosis (ALS);
Background :	This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene. [provided by RefSeq, Oct 2009],
Function :	catalytic activity:2 H(2)O(2) = O(2) + 2 H(2)O.,cofactor:Heme group.,cofactor:NADP.,disease:Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.,function:Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.,online information:Catalase entry,PTM:The N-terminus is blocked.,similarity:Belongs to the catalase family.,subunit:Homotetramer.,
Subcellular Location :	Cytoplasm
Expression :	Brain,Cajal-Retzius cell,Erythrocyte,Eye,Fibroblast,Kidney,Liver,Placenta,Platelet,Skin,Uterus,

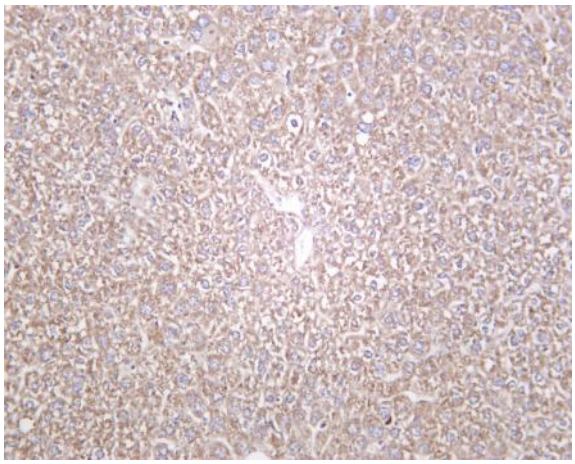
Products Images



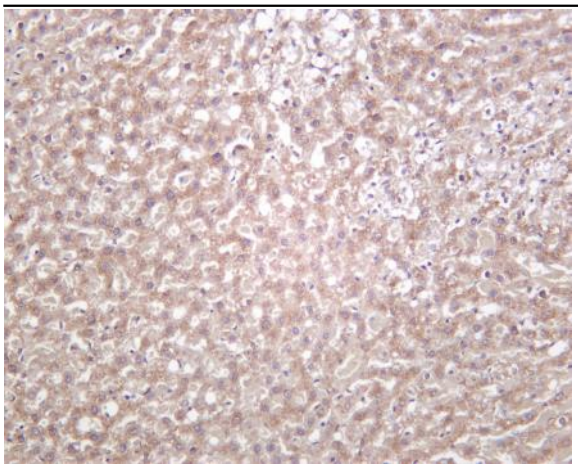
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Catalase (PT0146R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: HepG2 Lane 3: Jurkat Lane 4: U2OS Lane 5: Rat liver Predicted band size: 60kDa Observed band size: 60kDa



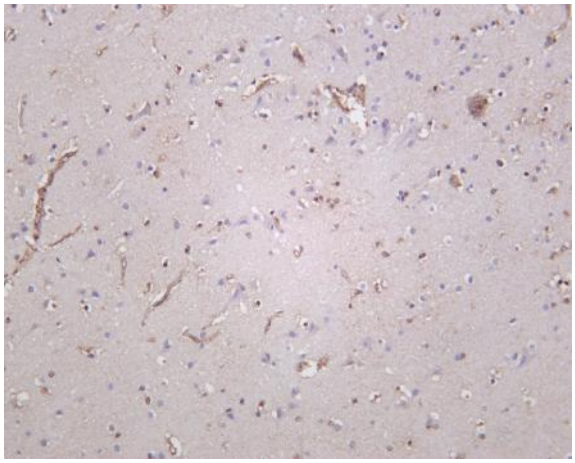
Human liver was stained with Anti-Catalase (PT0146R) rabbit antibody



Mouse liver was stained with Anti-Catalase (PT0146R) rabbit antibody



Rat liver was stained with Anti-Catalase (PT0146R) rabbit antibody



Human brain was stained with Anti-Catalase (PT0146R) rabbit antibody