



Catalase (phospho Tyr386) Polyclonal Antibody

Catalog No	BYab-02415
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	CAT
Protein Name	Catalase
Immunogen	The antiserum was produced against synthesized peptide derived from human Catalase around the phosphorylation site of Tyr385. AA range:361-410
Specificity	Phospho-Catalase (Y386) Polyclonal Antibody detects endogenous levels of Catalase protein only when phosphorylated at Y386.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CAT; Catalase
Observed Band	59kD
Cell Pathway	Peroxisome.
Tissue Specificity	Brain,Cajal-Retzius cell,Erythrocyte,Eye,Fibroblast,Kidney,Liver,Placenta,Platelet,Skin,Uterus,
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.,

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**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],

matters needing attention

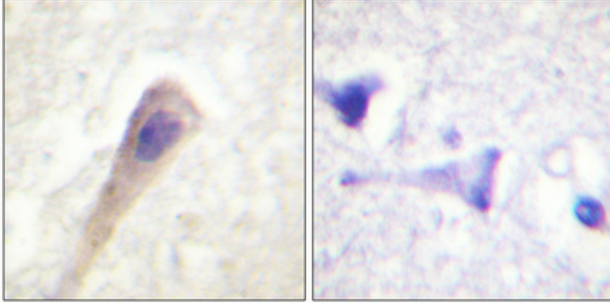
Avoid repeated freezing and thawing!

Usage suggestions

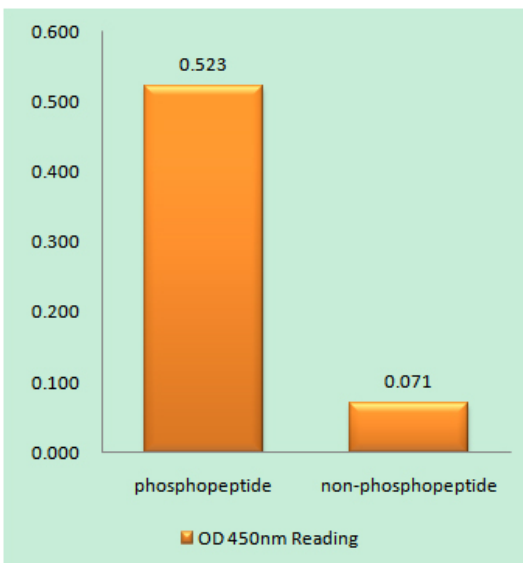
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



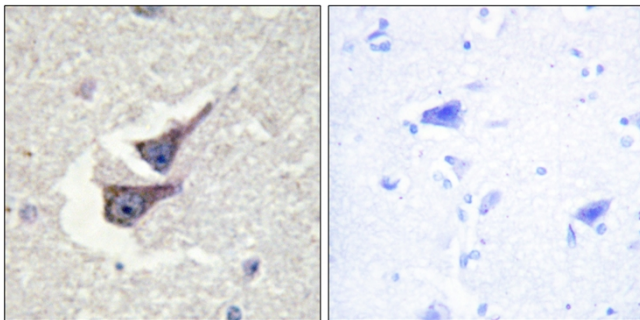
Products Images



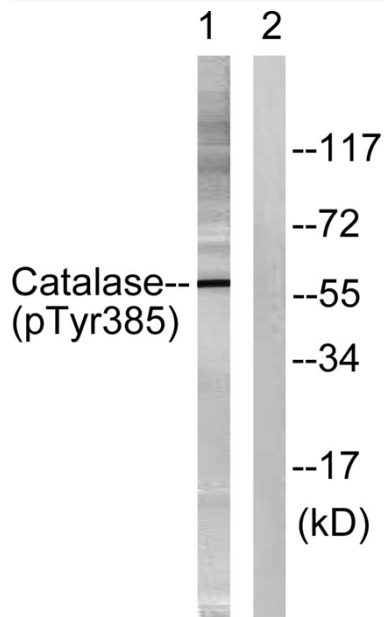
Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Catalase (Phospho-Tyr385) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using Catalase (Phospho-Tyr385) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from Jurkat cells, using Catalase (Phospho-Tyr385) Antibody. The lane on the right is blocked with the phospho peptide.