

Catalase (phospho Tyr386) Polyclonal Antibody

Catalog No: YP0728

Reactivity: Human; Mouse; Rat

Applications: WB;IHC;IF;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

P04040

P24270

Gene Name: CAT

Protein Name: Catalase

Human Gene Id: 847

Human Swiss Prot

No:

Mouse Gene ld: 12359

Mouse Swiss Prot

No:

Rat Gene Id: 24248

Rat Swiss Prot No: P04762

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.

1/4



Source: Polyclonal, Rabbit, IgG

Dilution : WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

Observed Band: 59kD

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 RefSeg, 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 : Peroxisome.

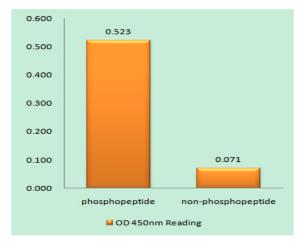
Expression : Brain, Cajal-Retzius

cell, Erythrocyte, Eye, Fibroblast, Kidney, Liver, Placenta, Platelet, Skin, Uterus,

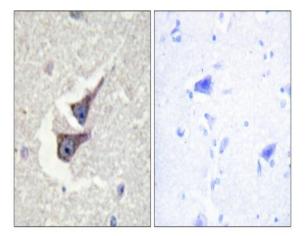
Products Images



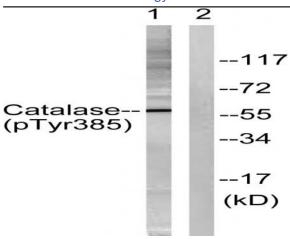
Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



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.