Product datasheet

Anti-Catalase/CAT Antibody

Catalog Number: *PB0971*

BOSTER
antibody and ELISA experts
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Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
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Basic Information

Product Name	Anti-Catalase/CAT Antibody
Gene Name	CAT
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E. coli-derived human Catalase recombinant protein (Position: E344-L527). Human Catalase shares 85.3% and 82.6% amino acid (aa) sequence identity with mouse and rat Catalase, respectively.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	60 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

Catalase is a key antioxidant enzyme in the bodies defensing against oxidative stress. It is also 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

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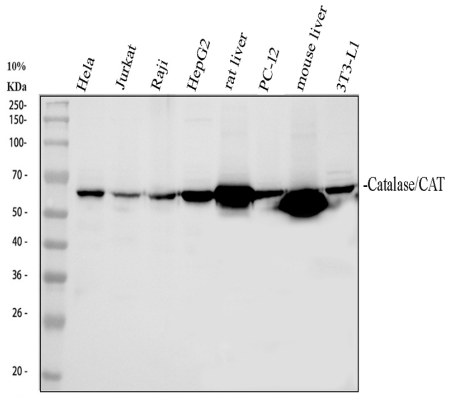
with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene.

Reference

Anti-Catalase/CAT Antibody被引用在7文献中。

Selected Validation Data



Western blot analysis of Catalase/CAT using anti-Catalase/CAT antibody (PB0971). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human Raji whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat liver tissue lysates,
Lane 6: rat PC-12 whole cell lysates,
Lane 7: mouse liver tissue lysates,
Lane 8: mouse 3T3-L1 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Catalase/CAT antigA03957-Aen affinity purified polyclonal antibody (PB0971) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Catalase/CAT at approximately 60 kDa. The expected band size for Catalase/CAT is at 60 kDa.

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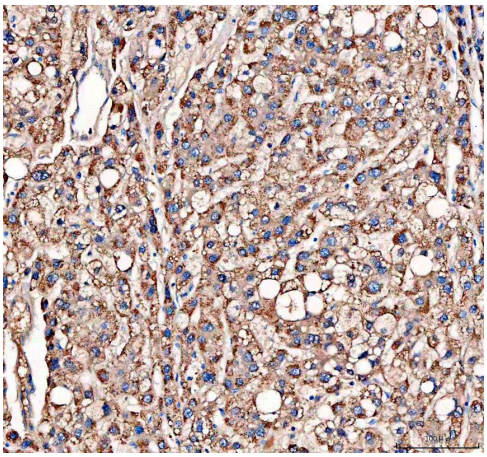
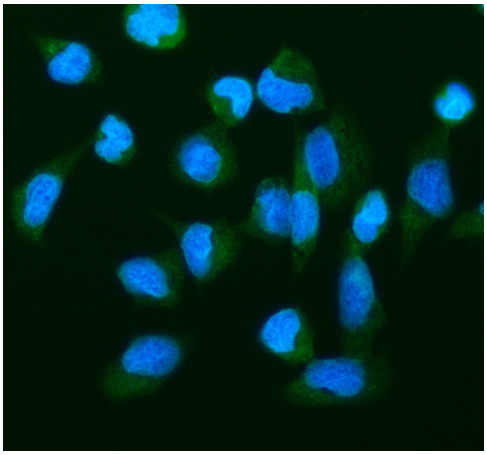
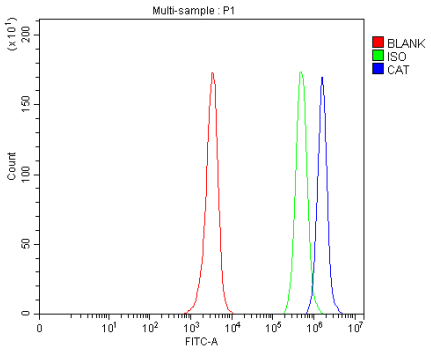


IHC analysis of Catalase/CAT using anti-Catalase/CAT antibody (PB0971).
Catalase/CAT was detected in a paraffin-embedded section of human liver cancer tissue. The tissue section was incubated with rabbit anti-Catalase/CAT Antibody (PB0971) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of Catalase/CAT using anti-Catalase/CAT antibody (PB0971).
Catalase/CAT was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-Catalase/CAT Antibody (PB0971) at a dilution of 1:100. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of Jurkat cells using anti-Catalase/CAT antibody (PB0971).
Overlay histogram showing Jurkat cells stained with PB0971 (Blue line). To facilitate intrMyelin basic protein/MBPllular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Catalase/CAT Antibody (PB0971) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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