Product Name: Catalase Rabbit Polyclonal Antibody
Catalog #: APRab07999

Summary

Production Name	Catalase Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,WB,IHC,ELISA
Reactivity	Human,Rat,Mouse,,Fish

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CAT
Alternative Names	CAT; Catalase
Gene ID	847.0
SwissProt ID	P04040.The antiserum was produced against synthesized peptide derived from the C-terminal region of human CAT. AA range:478-527

Application

Dilution Ratio	IF 1:50-200 WB 1:500 - 1:2000. IHC-p: 1:100-300 ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	60kD

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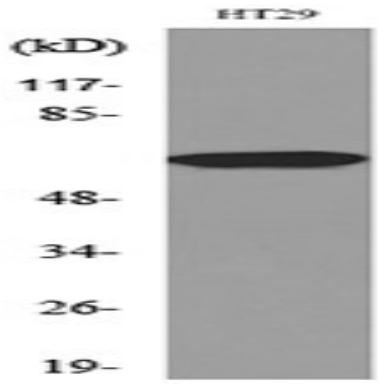
Background

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],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.,

Research Area

Tryptophan metabolism;Methane metabolism;Amyotrophic lateral sclerosis (ALS);

Image Data



Western blot analysis of lysate from HT29 cells, using CAT Antibody.

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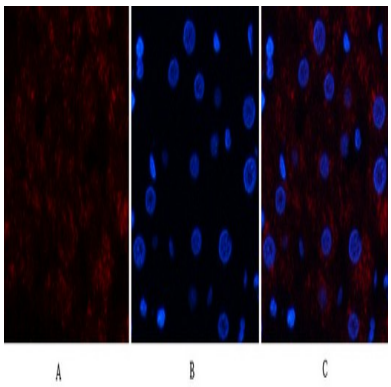
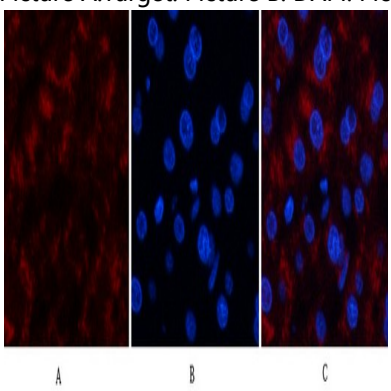


Immunofluorescence analysis of human-liver tissue. 1,Catalase Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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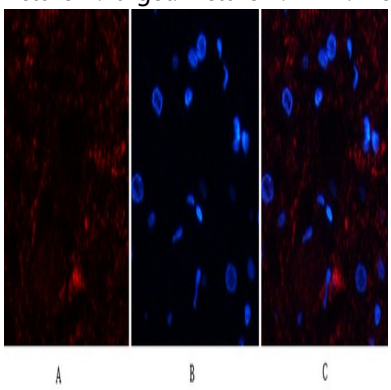

Immunofluorescence analysis of human-kidney-cancer tissue. 1,Catalase Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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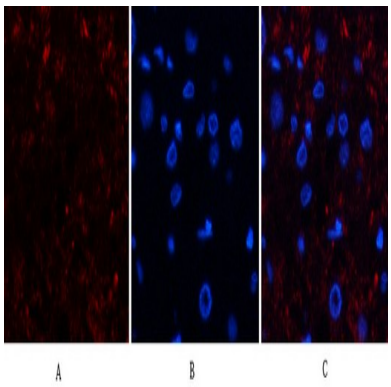

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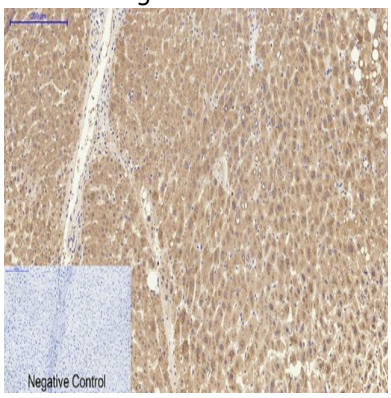
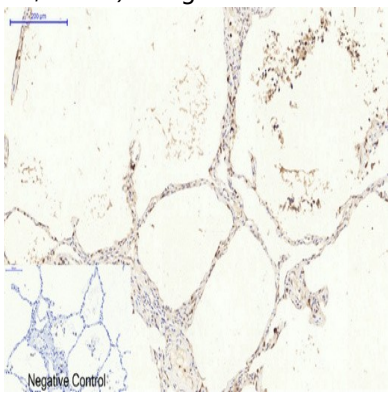


Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,Catalase Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-lung tissue. 1,Catalase Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.

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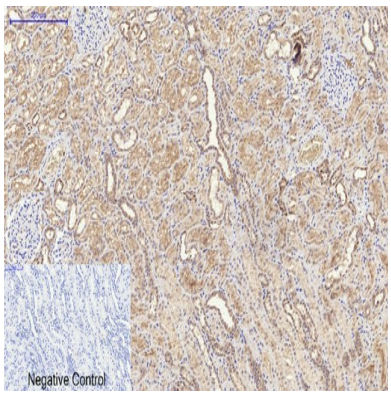
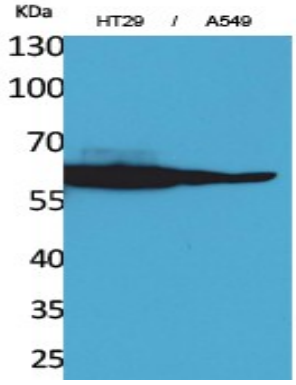


Immunohistochemical analysis of paraffin-embedded Human-kidney tissue. 1,Catalase Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.



Western Blot analysis of HT29, A549 cells using Catalase Polyclonal Antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000

Note

For research use only.