

Anti-Catalase Picoband Antibody
Catalog # ABO12610**Specification**

Anti-Catalase Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P04040
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Catalase(CAT) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Catalase Picoband Antibody - Additional Information

Gene ID 847

Other Names

Catalase, 1.11.1.6, CAT

Calculated MW

59756 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Peroxisome.

Protein Name

Catalase

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

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.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Catalase Picoband Antibody - Protein Information

Name CAT

Function

Catalyzes the degradation of hydrogen peroxide (H₂O₂) generated by peroxisomal oxidases to water and oxygen, thereby protecting cells from the toxic effects of hydrogen peroxide (PubMed:[7882369](http://www.uniprot.org/citations/7882369)). Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells (PubMed:[7882369](http://www.uniprot.org/citations/7882369)).

Cellular Location

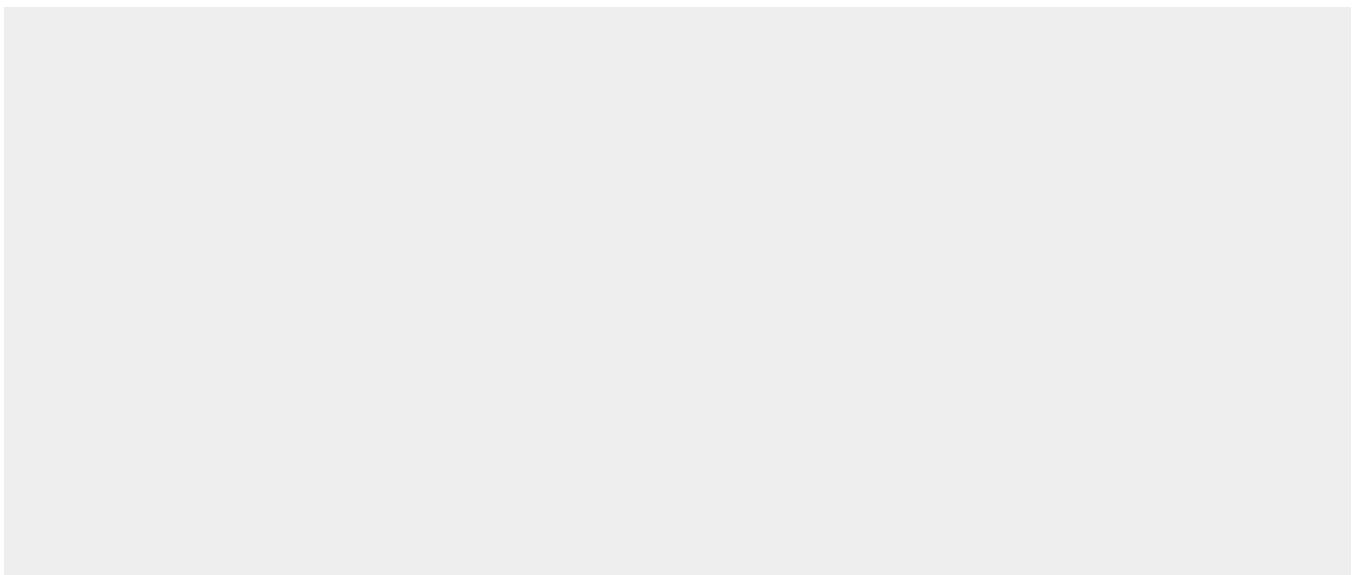
Peroxisome matrix

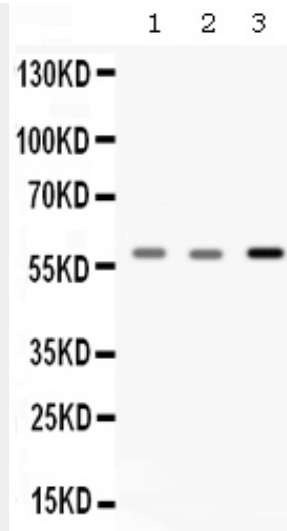
Anti-Catalase Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

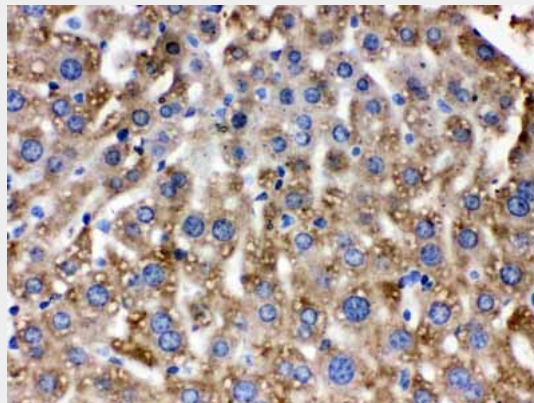
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Catalase Picoband Antibody - Images

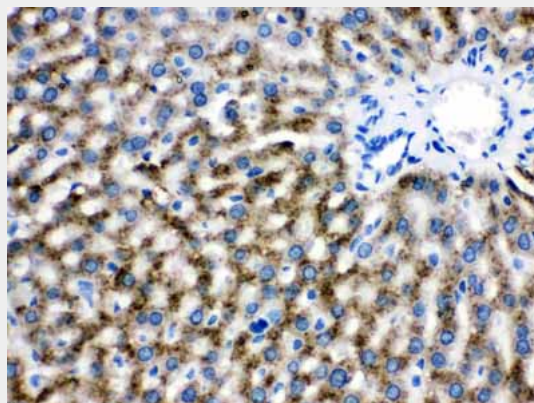




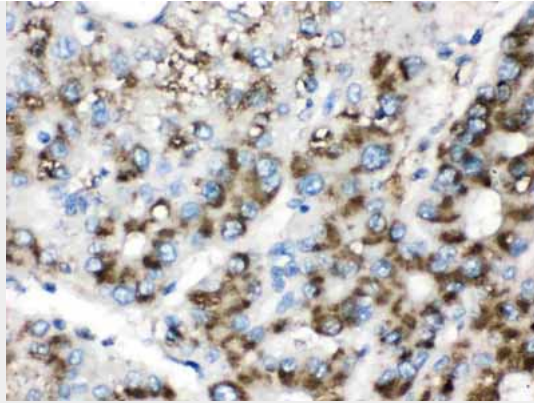
Western blot analysis of Catalase expression in rat skeletal muscle extract (lane 1), mouse skeletal muscle extract (lane 2) and A549 whole cell lysates (lane 3). Catalase at 60KD was detected using rabbit anti- Catalase Antigen Affinity purified polyclonal antibody (Catalog # ABO12610) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .



Catalase was detected in paraffin-embedded sections of mouse liver tissues using rabbit anti-Catalase Antigen Affinity purified polyclonal antibody (Catalog # ABO12610) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



Catalase was detected in paraffin-embedded sections of rat liver tissues using rabbit anti-Catalase Antigen Affinity purified polyclonal antibody (Catalog # ABO12610) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



Catalase was detected in paraffin-embedded sections of human liver cancer tissues using rabbit anti- Catalase Antigen Affinity purified polyclonal antibody (Catalog # ABO12610) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Anti-Catalase Picoband Antibody - Background

Catalase is a key antioxidant enzyme in the bodies defending 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 with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene.