

Anti-Catalase Antibody

Rabbit Polyclonal Antibody Catalog # ABV12042

## Specification

# **Anti-Catalase Antibody - Product Information**

Application Primary Accession Reactivity Host Clonality Isotype WB <u>P04040</u> Human, Mouse Rabbit Polyclonal Rabbit IgG

### **Anti-Catalase Antibody - Additional Information**

Gene ID 847

Application & Usage

WB: Jurkat, 3T3, HepG2 cell lysates, human catalase

Other Names CAT

Target/Specificity Catalase

Antibody Form Liquid

Appearance Colorless liquid

**Formulation** In PBS pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.03% proclin

Handling The antibody solution should be gently mixed before use.

Reconstitution & Storage -20 °C

**Background Descriptions** 

**Precautions** Anti-Catalase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Anti-Catalase Antibody - Protein Information**



### Name CAT

#### **Function**

Catalyzes the degradation of hydrogen peroxide (H(2)O(2)) generated by peroxisomal oxidases to water and oxygen, thereby protecting cells from the toxic effects of hydrogen peroxide (PubMed:<a href="http://www.uniprot.org/citations/7882369" target="\_blank">7882369</a>). Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells (PubMed:<a href="http://www.uniprot.org/citations/7882369" target=" http://www.uniprot.org/citations/7882369" target=" http://www.uniprot.org

Cellular Location Peroxisome

# Anti-Catalase 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 Cytomety
- <u>Cell Culture</u>

### Anti-Catalase Antibody - Images



Western blot analysis of catalase antibody in:Lansl: Jurkatcell lysate Lans2: 3T3 cell lysate Lan33: HepG2 cell lysate Lans4: human catalase2 ng Lan95: human catalaselOng

## Anti-Catalase Antibody - Background

Catalase protein occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. It promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells. Catalase is a key antioxidant enzyme in the body's 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.