

# Catalase(JM11-12)

rev. 03/01/17  
Cat#: ET1703-31

**Product Type:** Recombinant rabbit monoclonal IgG, primary antibodies

**Species reactivity:** Human, Mouse, Rat, Zebrafish

**Applications:** WB, IHC

**Molecular Wt.:** 60 kDa

**Clone number:** JM11-12

**Description:** Catalase is a peroxisome specific marker protein belonging to the catalase family. Defects in the gene encoding for the catalase protein can cause acatalasia, a disease characterized by the absence of catalase activity in red cells and associated with ulcerating oral lesions. Catalase is also an important regulator of oxidative stress and inflammation, and may contribute to the development of rheumatoid arthritis. Catalase, which can form a homotetramer, is found in all nearly all aerobically respiring organisms and functions in protecting cells from the toxic effects of hydrogen peroxide.

#### Immunogen:

Recombinant protein.

#### Positive control:

HepG2, mouse brain, zebrafish tissue, human liver tissue, human uterus tissue, mouse liver tissue, mouse prostate tissue, rat adrenal gland tissue.

#### Subcellular location:

Peroxisome.

#### Database links:

SwissProt: P04040 (Human) P24270 (Mouse) P04762 (Rat)

#### Recommended Dilutions:

**WB:** 1:1,000-1:2,000      **IHC:** 1:50-1:200

#### Storage Buffer:

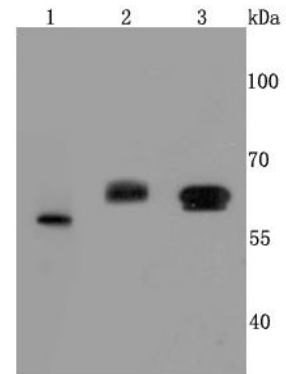
1\*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

#### Storage Instruction:

Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

#### Purity:

ProA affinity purified.



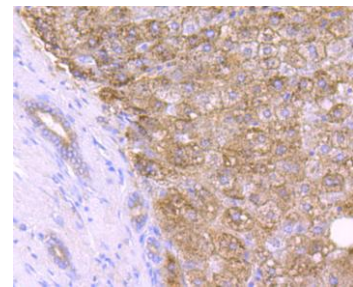
**Fig1:** Western blot analysis of Catalase on different cells lysates using anti-Catalase antibody at 1/500 dilution.

**Positive control:**

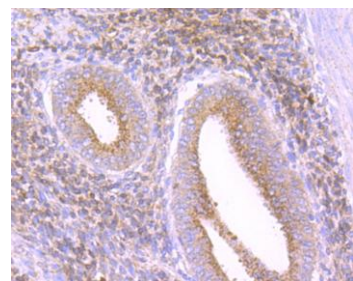
**Line 1: Zebrafish**

**Line 2: Mouse brain**

**Line 3: HepG2**



**Fig2:** Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-Catalase antibody. Counter stained with hematoxylin.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human uterus tissue using anti-Catalase antibody. Counter stained with hematoxylin.

Hangzhou HuaAn Biotechnology Co.,Ltd.

Orders: 0086-571-88062880

Support: 0086-571-89986345

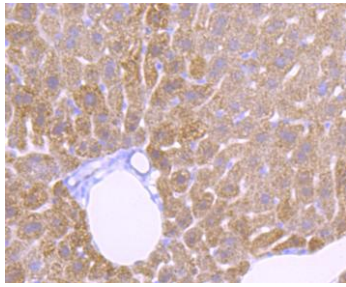
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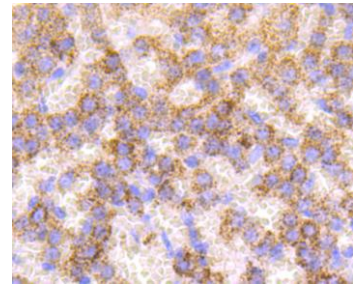


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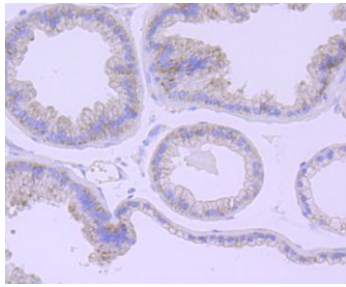
Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry  
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish  
B=bovine Dg=dog Pg=pig Sc=S.



**Fig4:** Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-Catalase antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded rat adrenal gland tissue using anti-Catalase antibody. Counter stained with hematoxylin.



**Fig5:** Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti-Catalase antibody. Counter stained with hematoxylin.

#### Background References

1. Schiffer TA et al. Control of human energy expenditure by cytochrome c oxidase subunit IV-2. *Am J Physiol Cell Physiol* 311:C452-61 (2016).
2. Liu X et al. The novel triterpenoid RTA 408 protects human retinal pigment epithelial cells against H2O2-induced cell injury via NF-E2-related factor 2 (Nrf2) activation. *Redox Biol* 8:98-109 (2016).

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Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish  
B=bovine Dg=dog Pg=pig Sc=S.