

**CAT Antibody (Center) (Ascites)**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM2118a****Specification**

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**CAT Antibody (Center) (Ascites) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P04040</a>
Other Accession	<a href="#">P04762</a> , <a href="#">O62839</a> , <a href="#">P24270</a> , <a href="#">O9PT92</a> , <a href="#">P00432</a> , <a href="#">NP_001743.1</a>
Reactivity	Human, Mouse
Predicted	Bovine, Zebrafish, Pig, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Antigen Region	152-180

**CAT Antibody (Center) (Ascites) - Additional Information****Gene ID** 847**Other Names**  
Catalase, CAT**Target/Specificity**

This CAT antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 152-180 amino acids from the Central region of human CAT.

**Dilution**

WB~~1:1600

**Format**

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CAT Antibody (Center) (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

**CAT Antibody (Center) (Ascites) - Protein Information****Name** CAT**Function** Catalyzes the degradation of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) generated by peroxisomal oxidases to water and oxygen, thereby protecting cells from the toxic effects of hydrogen peroxide

(PubMed:[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](#)).

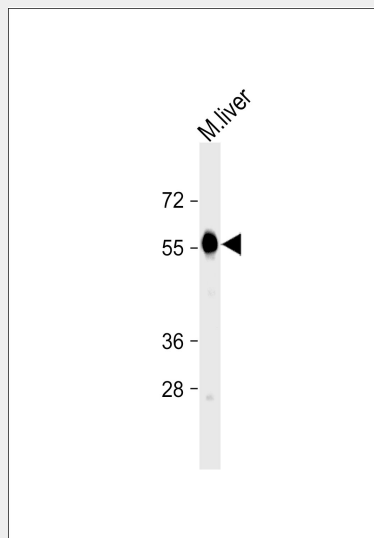
**Cellular Location**  
Peroxisome matrix

### CAT Antibody (Center) (Ascites) - Protocols

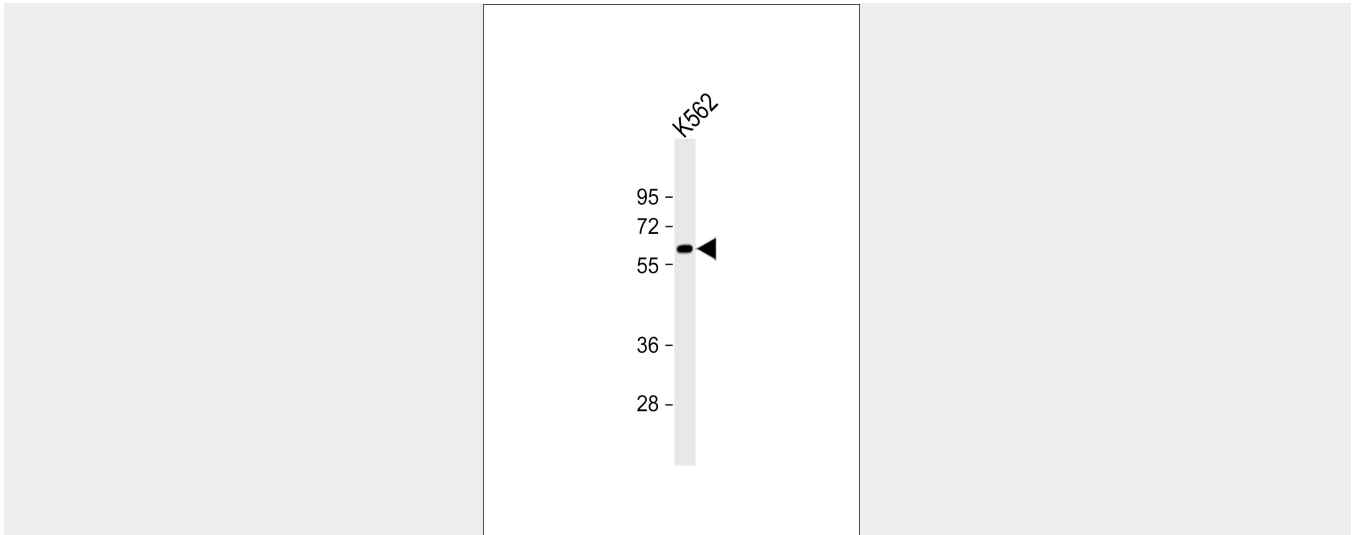
Provided below are standard protocols that you may find useful for product applications.

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

### CAT Antibody (Center) (Ascites) - Images



"Anti-CAT Antibody (Center) (Ascites) at 1:1600 dilution + mouse liver lysate Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 59756 Da Blocking/Dilution buffer: 5% NFDM/TBST."



"Anti-CAT Antibody (Center) (Ascites) at 1:1600 dilution + K562 whole cell lysate Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 59756 Da Blocking/Dilution buffer: 5% NFDM/TBST."

### **CAT Antibody (Center) (Ascites) - 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.

### **CAT Antibody (Center) (Ascites) - References**

Banerjee, M., et al. Toxicol. Appl. Pharmacol. 249(1):47-54(2010)  
Wu, S.H., et al. Clin. Chim. Acta 411 (21-22), 1705-1710 (2010) :  
Liu, L., et al. J. Invest. Dermatol. 130(11):2647-2653(2010)  
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)  
Dutkiewicz, G., et al. Nephrology (Carlton) 15(5):587-591(2010)

### **CAT Antibody (Center) (Ascites) - Citations**

- [Inhibition of p38 MAPK sensitizes tumour cells to cisplatin-induced apoptosis mediated by reactive oxygen species and JNK.](#)