

**Mouse Anti-Catalase [H9]: MC0295, MC0295RTU7**

**Intended Use:** For Research Use Only

**Description:** 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.

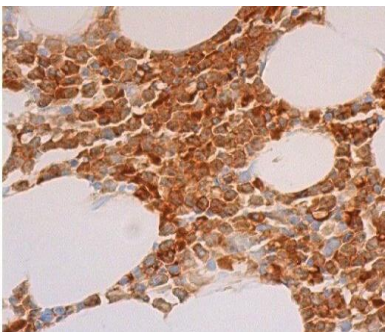
**Specifications**

Clone: H9  
 Source: Mouse  
 Isotype: IgG2a/k  
 Reactivity: Human, mouse, rat  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, IF, IHC, IP, WB  
 Package:

Description	Catalog No.	Size
Catalase Concentrated	MC0295	1 ml
Catalase Prediluted	MC0295RTU7	7 ml

**IHC Procedure**

Positive Control Tissue: Human kidney  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE human bone marrow stained with anti-Catalase using DAB

**References:**

1. Protein nitration profile of CD3+ lymphocytes from Alzheimer disease patients: Novel hints on immunosenescence and biomarker detection. Tramutola A, et al. Free Radic Biol Med. Dec;129:430-439, 2018.
2. Impact of Trans-Fats on Heat-Shock Protein Expression and the Gut Microbiota Profile of Mice. Carvalho GCBC, et al. J Food Sci. Feb;83(2):489-498, 2018.
3. Leflunomide attenuates oxidative stress in fetal human lung endothelial cells via superoxide dismutase 2 and catalase. Shrestha AK, et al. Biochem Biophys Res Commun. 2018 Sep 10;503(3):2009-2014, 2018.

Doc. 100-MC0295  
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