Datasheet for ABIN6137988

anti-Catalase antibody (AA 1-225)

3 Images

Go to Product page

Overview

Quantity:	100 µL
Target:	Catalase (CAT)
Binding Specificity:	AA 1-225
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Catalase antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP)

Product Details

Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-225 of human Catalasealase (NP_001743.1).
Sequence:	MADSRDPASD QMQHWKEQRA AQKADVLTTG AGNPVGDKLN VITVGPRGPL LVQDVVFTDE MAHFDRERIP ERVVHAKGAG AFGYFEVTHD ITKYSKAKVF EHIGKKTPIA VRFSTVAGES GSADTVRDPR GFAVKFYTED GNWDLVGNNT PIFFIRDPIL FPSFIHSQKR NPQTHLKDPD MVWDFWSLRP ESLHQVSFLF SDRGIPDGHR HMNGYGSHTF KLVNA
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Polyclonal Antibodies
Purification:	Affinity purification

Target Details

Target:	Catalase (CAT)
Alternative Name:	CAT (CAT Products)
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,catalase,MGC138422,MGC138424,Cancer,Signal Transduction,Endocrine & Metabolism,Neuroscience,Neurodegenerative Diseases,Cardiovascular,Heart,Cardiac metabolism,CAT
Molecular Weight:	59 kDa
Gene ID:	847
UniProt:	P04040
Pathways:	Cellular Glucan Metabolic Process, Cell RedoxHomeostasis, Photoperiodism

Application Details

Application Notes:	WB,1:1000 - 1:3000,IP,1:20 - 1:50
Comment:	HIGH QUALITY
Restrictions:	For Research Use only

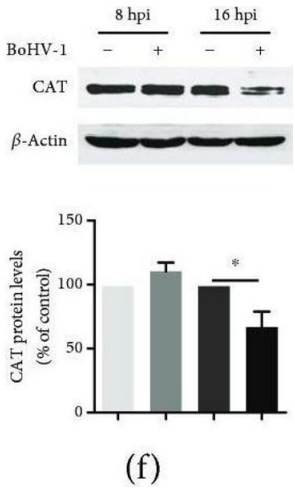
Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide,50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Handling

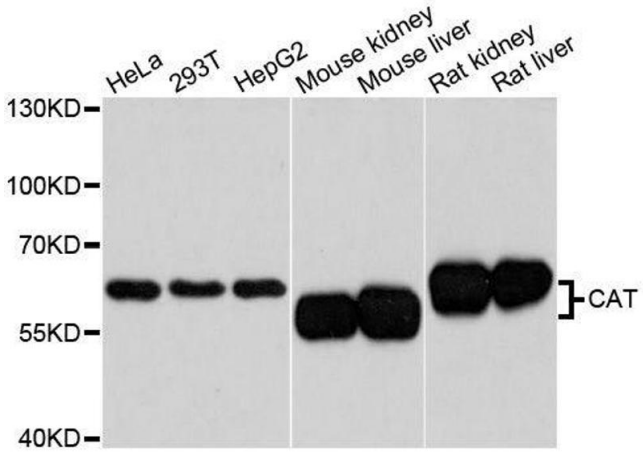
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Images



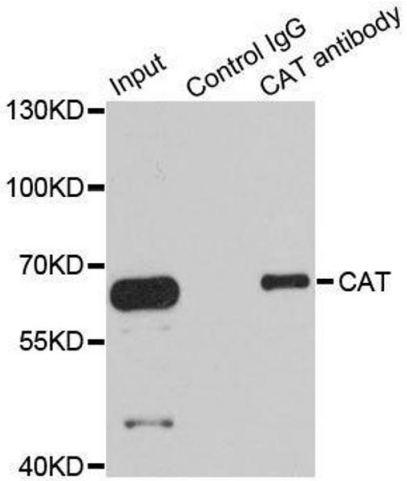
Western Blotting

Image 1. The effects of BoHV-1 infection on the gene expression of antioxidant enzymes. (a, c, e, and g) The total RNA was prepared at 8 and 16h after infection in MDBK cells, and the mRNA levels of SOD1 (a), SOD2 (c), CAT (e), and GPX4 (g) were measured by qRT-PCR. Each analysis was compared with that of uninfected control which was arbitrarily set as 100 % . Data represent three independent experiments. Significance was assessed with the Student t-test ($p < 0.05$). (b, d, f, and h) MDBK cells in 60mm dishes were mock infected or infected with BoHV-1 at an MOI of 1 for 8 and 16h. The cell lysates were then prepared for Western blots to detect the expression of SOD1 (b), SOD2 (d), CAT (f), and GPX4 (h) using SOD1 polyclonal antibody, SOD2 polyclonal antibody, CAT polyclonal antibody, and GPX4 polyclonal antibody. The band intensity was analyzed with software ImageJ. Each analysis was compared with that of uninfected control which was arbitrarily set as 100 %. Data represent two independent experiments. Significance was assessed with the Student t-test ($p < 0.05$), ns: not significant. - figure provided by CiteAb. Source: PMID31011285



Western Blotting

Image 2. Western blot analysis of extracts of various cell lines, using CAT antibody.



Immunoprecipitation

Image 3. Immunoprecipitation analysis of 100ug extracts of HepG2 cells using 3ug CAT antibody.

