

## Caspase-6 Antibody

Rabbit mAb Catalog # AP90612

## **Specification**

## **Caspase-6 Antibody - Product Information**

Application WB, IHC, ICC, IP

Primary Accession P55212
Reactivity Rat

Clonality Monoclonal

**Other Names** 

MCH2; CASP6; Caspase-6;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 33310 Da

# **Caspase-6 Antibody - Additional Information**

Dilution WB~~1:1000

IHC~~1:100~500

ICC~~N/A IP~~N/A

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

Caspase-6

Description Caspase-6 (Mch2) is one of the major

executioner caspases functioning in cellular apoptotic processes. Upon apoptotic stimulation, initiator caspases such as caspase-9 are cleaved and

activated. The activated upstream caspases further process downstream executioner caspases, such as caspase-3 and caspase-6, by cleaving them into large and small subunits, thereby initiating a caspase cascade leading to apoptosis. One of the major targets for caspase-6 is the

membrane associated protein lamin A. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at  $\pm 4^{\circ}$ C short

term. Store at -20°C long term. Avoid

freeze / thaw cycle.

Storage Condition and Buffer

## **Caspase-6 Antibody - Protein Information**

Name CASP6 (HGNC:1507)



### **Function**

Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed: <a href="http://www.uniprot.org/citations/19133298" target=" blank">19133298</a>, PubMed:<a href="http://www.uniprot.org/citations/22858542" target=" blank">22858542</a>, PubMed:<a href="http://www.uniprot.org/citations/27032039" target=" blank">27032039</a>, PubMed:<a href="http://www.uniprot.org/citations/28864531" target=" blank">28864531</a>, PubMed:<a href="http://www.uniprot.org/citations/30420425" target="blank">30420425</a>, PubMed:<a href="http://www.uniprot.org/citations/32298652" target="blank">32298652</a>, PubMed:<a href="http://www.uniprot.org/citations/8663580" target=" blank">8663580</a>). Acts as a non- canonical executioner caspase during apoptosis: localizes in the nucleus and cleaves the nuclear structural protein NUMA1 and lamin A/LMNA thereby inducing nuclear shrinkage and fragmentation (PubMed:<a href="http://www.uniprot.org/citations/11953316" target=" blank">11953316</a>, PubMed:<a href="http://www.uniprot.org/citations/17401638" target="blank">17401638</a>, PubMed:<a href="http://www.uniprot.org/citations/8663580" target=" blank">8663580</a>, PubMed:<a href="http://www.uniprot.org/citations/9463409" target="blank">9463409</a>). Lamin-A/LMNA cleavage is required for chromatin condensation and nuclear disassembly during apoptotic execution (PubMed: <a href="http://www.uniprot.org/citations/11953316" target=" blank">11953316</a>). Acts as a regulator of liver damage by promoting hepatocyte apoptosis: in absence of phosphorylation by AMP-activated protein kinase (AMPK), catalyzes cleavage of BID, leading to cytochrome c release, thereby participating in nonalcoholic steatohepatitis (PubMed: <a href="http://www.uniprot.org/citations/32029622" target=" blank">32029622</a>). Cleaves PARK7/DJ-1 in cells undergoing apoptosis (By similarity). Involved in intrinsic apoptosis by mediating cleavage of RIPK1 (PubMed: <a href="http://www.uniprot.org/citations/22858542" target="\_blank">22858542</a>). Furthermore, cleaves many transcription factors such as NF-kappa-B and cAMP response element-binding protein/CREBBP (PubMed:<a href="http://www.uniprot.org/citations/10559921" target=" blank">10559921</a>, PubMed:<a href="http://www.uniprot.org/citations/14657026" target=" blank">14657026</a>). Cleaves phospholipid scramblase proteins XKR4 and XKR9 (By similarity). In addition to apoptosis, involved in different forms of programmed cell death (PubMed:<a href="http://www.uniprot.org/citations/32298652" target=" blank">32298652</a>). Plays an essential role in defense against viruses by acting as a central mediator of the ZBP1-mediated pyroptosis, apoptosis, and necroptosis (PANoptosis), independently of its cysteine protease activity (PubMed:<a href="http://www.uniprot.org/citations/32298652" target=" blank">32298652</a>). PANoptosis is a unique inflammatory programmed cell death, which provides a molecular scaffold that allows the interactions and activation of machinery required for inflammasome/pyroptosis, apoptosis and necroptosis (PubMed: <a href="http://www.uniprot.org/citations/32298652" target=" blank">32298652</a>). Mechanistically, interacts with RIPK3 and enhances the interaction between RIPK3 and ZBP1, leading to ZBP1-mediated inflammasome activation and cell death (PubMed: <a href="http://www.uniprot.org/citations/32298652" target="\_blank">32298652</a>). Plays an essential role in axon degeneration during axon pruning which is the remodeling of axons during neurogenesis but not apoptosis (By similarity). Regulates B-cell programs both during early development and after antigen stimulation (By similarity).

**Cellular Location** Cytoplasm. Nucleus

### Caspase-6 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

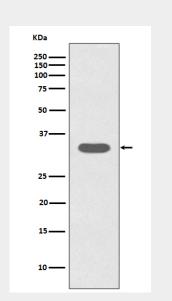




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- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# Caspase-6 Antibody - Images



Western blot analysis of Caspase-6 expression in Jurkat cell lysate.