

# Caspase 6 Rabbit mAb

Catalog # AP74813

## Product Information

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<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">P55212</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	33310

## Additional Information

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<b>Gene ID</b>	839
<b>Other Names</b>	CASP6
<b>Dilution</b>	WB~~1:500-1:1000 IHC-P~~N/A
<b>Format</b>	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	CASP6 ( <a href="#">HGNC:1507</a> )
<b>Function</b>	Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed: <a href="#">19133298</a> , PubMed: <a href="#">22858542</a> , PubMed: <a href="#">27032039</a> , PubMed: <a href="#">28864531</a> , PubMed: <a href="#">30420425</a> , PubMed: <a href="#">32298652</a> , PubMed: <a href="#">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="#">11953316</a> , PubMed: <a href="#">17401638</a> , PubMed: <a href="#">8663580</a> , PubMed: <a href="#">9463409</a> ). Lamin-A/LMNA cleavage is required for chromatin condensation and nuclear disassembly during apoptotic execution (PubMed: <a href="#">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="#">32029622</a> ). Cleaves PARK7/DJ-1 in cells undergoing apoptosis (By similarity). Involved in intrinsic apoptosis by mediating cleavage of RIPK1

(PubMed:[22858542](#)). Furthermore, cleaves many transcription factors such as NF-kappa-B and cAMP response element-binding protein/CREBBP (PubMed:[10559921](#), PubMed:[14657026](#)). Cleaves phospholipid scramblase proteins XKR4 and XKR9 (By similarity). In addition to apoptosis, involved in different forms of programmed cell death (PubMed:[32298652](#)). 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:[32298652](#)). 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:[32298652](#)). Mechanistically, interacts with RIPK3 and enhances the interaction between RIPK3 and ZBP1, leading to ZBP1-mediated inflammasome activation and cell death (PubMed:[32298652](#)). 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).

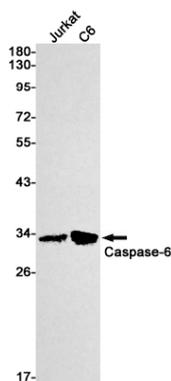
### Cellular Location

Cytoplasm. Nucleus

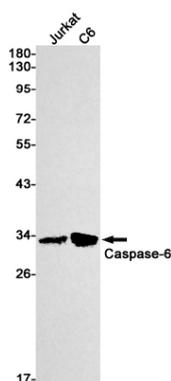
## Background

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.

## Images



Western blot analysis of Caspase6 in Jurkat, C6 lysates using Caspase 6 antibody.



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