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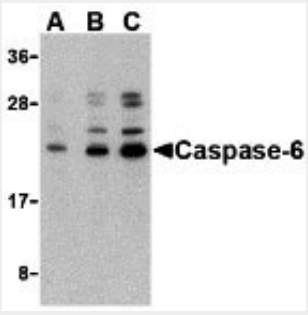
Caspase-6 Antibody
Catalog # ASC10302

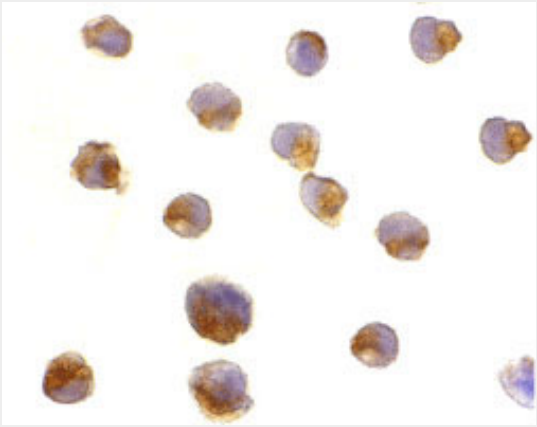
Specification

Caspase-6 Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P55212
Other Accession	NP_001217, 14916483
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Caspase-6 antibody can be used for the detection of caspase-6 by Western blot at 0.5 to 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 2 µg/mL.**



Western blot analysis of caspase-6 in Jurkat cell lysate with caspase-6 antibody at (A) 0.5, (B) 1, and (C) 2 µg/mL.



Immunocytochemistry of caspase-6 in Jurkat cells with caspase-6 antibody at 2 µg/mL.

Caspase-6 Antibody - Additional Information

Gene ID **839**

Other Names
Caspase-6 Antibody: MCH2, MCH2, Caspase-6, Apoptotic protease Mch-2, CASP-6, caspase 6, apoptosis-related cysteine peptidase

Target/Specificity
CASP6; Depending on cell lines or tissues used, either full-length or other cleavage products may be observed.

Reconstitution & Storage
Caspase-6 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Caspase-6 Antibody is for research use only and not for use in diagnostic or therapeutic

Caspase-6 Antibody - Background

Caspase-6 Antibody: Caspases are a family of cysteine proteases that can be divided into the apoptotic and inflammatory caspase subfamilies. Unlike the apoptotic caspases, members of the inflammatory subfamily are generally not involved in cell death but are associated with the immune response to microbial pathogens. The apoptotic subfamily can be further divided into initiator caspases, which are activated in response to death signals, and executioner caspases, which are activated by the initiator caspases and are responsible for cleavage of cellular substrates

procedures.

Caspase-6 Antibody - Protein Information

Name CASP6

Synonyms MCH2

Function
Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed:8663580, PubMed:32298652). During apoptosis, localizes in the nucleus and cleaves the nuclear structural protein NUMA1 and lamin A/LMNA thereby inducing nuclear shrinkage and fragmentation (PubMed:17401638, PubMed:8663580, PubMed:9463409). Furthermore, cleaves many transcription factors such as NF-kappa-B and cAMP response element-binding protein/CREBBP (PubMed:10559921, PubMed:14657026). 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). In addition, promotes the ZBP1-mediated activation of programmed cell death pathways including pyroptosis, apoptosis, and necroptosis (PANoptosis) and plays an essential role in defense against viruses (PubMed:32298652). Mechanistically, interacts with RIPK3 and enhances the interaction between RIPK3 that ultimately lead to cell death. Caspase-6 is an executioner caspase that was idientifed based on its homology with human caspases 2 and 3 as well as the C. elegans cell death protein CED-3. It possesses two isoforms, of which only the longer form possesses protease activity. Caspase-6 is highly expressed in adult brain and may play a role in several neuronal pathologies.

Caspase-6 Antibody - References

Martinon F and Tschopp J. Inflammatory caspases: linking an intracellular innate immune system to autoinflammatory diseases. Cell 2004; 117:561-74.
Zhivotovsky B and Orrenius S. Caspase-2 function in response to DNA damage. Biochim. Biophys. Res. Comm. 2005; 331:859-67.
Wolf BB and Green DR. Suicidal tendencies: apoptotic cell death by caspase family proteinases. J. Biol. Chem. 1999; 274:20049-52.
Fernandes-Alnemri T, Litwack G, and Alnemri ES. Mch2, a new member of the apoptotic Ced-3/Ice cysteine protease gene family. Cancer Res. 1995; 55:2737-42.

and ZBP1, leading to ZBP1-mediated inflammasome activation and cell death (PubMed:32298652).

Cellular Location
Cytoplasm.

Caspase-6 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture