

## Caspase-6 Antibody

Catalog # ASC10301

### Specification

#### Caspase-6 Antibody - Product Information

|                   |                                                                                                                                                                                                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | WB, ICC, IF                                                                                                                                                                                                   |
| Primary Accession | <a href="#">P55212</a>                                                                                                                                                                                        |
| Other Accession   | <a href="#">NP_001217</a> ,<br><a href="#">14916483</a>                                                                                                                                                       |
| Reactivity        | Human                                                                                                                                                                                                         |
| Host              | Rabbit                                                                                                                                                                                                        |
| Clonality         | Polyclonal                                                                                                                                                                                                    |
| Isotype           | IgG                                                                                                                                                                                                           |
| Application Notes | Casp-6 antibody can be used for the detection of Caspase-6 by Western blot at 1 and 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 1 µg/mL. For immunofluorescence start at 10 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

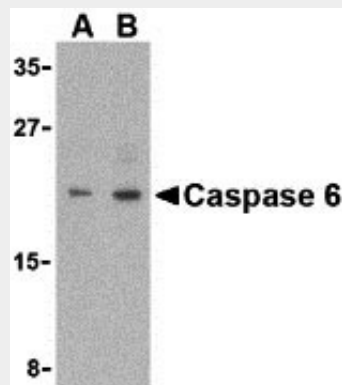
CASP6; Depending on cell lines or tissues used, either full-length or other cleavage products may be observed.

#### Reconstitution & Storage

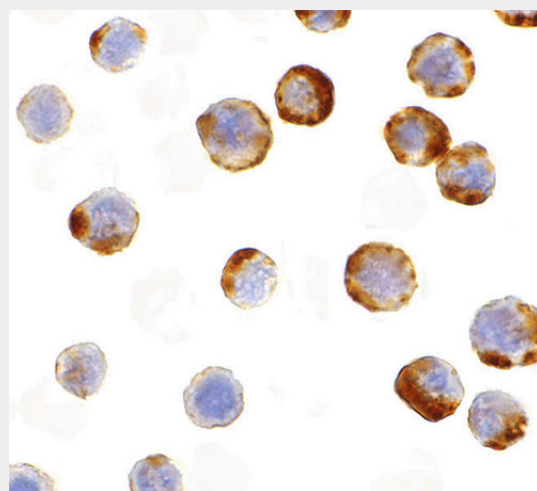
Caspase-6 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

#### Precautions

Caspase-6 Antibody is for research use only



Western blot analysis of Caspase-6 in MCF7 cell lysate with Caspase-6 antibody (IN) at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of caspase-6 in MCF7 with caspase-6 antibody at 1 µg/mL.

and not for use in diagnostic or therapeutic procedures.

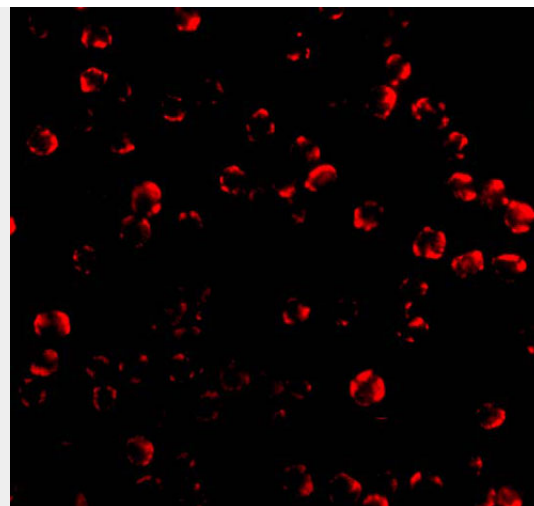
#### Caspase-6 Antibody - Protein Information

**Name** CASP6

**Synonyms** MCH2

#### Function

Cysteine protease that plays essential roles in programmed cell death, axonal degeneration, development and innate immunity (PubMed:<a href="http://www.uniprot.org/citations/8663580" target="\_blank">8663580</a>, PubMed:<a href="http://www.uniprot.org/citations/32298652" target="\_blank">32298652</a>). 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/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>). 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>). 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:<a href="http://www.uniprot.org/citations/32298652" target="\_blank">32298652</a>). Mechanistically, interacts with RIPK3 and



Immunofluorescence of Caspase 6 in MCF7 cells with Caspase 6 antibody at 10 µg/mL.

#### 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 that ultimately lead to cell death. Caspase-6 is an executioner caspase that was identified 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:

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>).

**Cellular Location**

Cytoplasm.

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.

**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 Cytometry](#)
- [Cell Culture](#)