

**pro Caspase 3 Antibody**  
**Rabbit mAb**  
**Catalog # AP90749**

## Specification

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### pro Caspase 3 Antibody - Product Information

|                                                                                                                                 |                        |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Application                                                                                                                     | WB, IHC, FC, ICC, IP   |
| Primary Accession                                                                                                               | <a href="#">P42574</a> |
| Clonality                                                                                                                       | Monoclonal             |
| <b>Other Names</b>                                                                                                              |                        |
| Yama; CASP3; Caspase 3; CPP32; Caspase 3 apoptosis related cysteine peptidase; CPP32B; Procaspase 3; SCA 1; SCA1; Yama protein; |                        |
| Isotype                                                                                                                         | Rabbit IgG             |
| Host                                                                                                                            | Rabbit                 |
| Calculated MW                                                                                                                   | 31608 Da               |

### pro Caspase 3 Antibody - Additional Information

|                              |                                                                                                                                                                                                                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dilution                     | WB~~1:1000<br>IHC~~1:100~500<br>FC~~1:10~50<br>ICC~~N/A<br>IP~~N/A                                                                                                                                                                                                                          |
| Purification                 | Affinity-chromatography                                                                                                                                                                                                                                                                     |
| Immunogen                    | A synthesized peptide derived from human pro Caspase 3                                                                                                                                                                                                                                      |
| Description                  | Caspases are a family of cytosolic aspartate specific cysteine proteases. Involved in the activation cascade of caspases responsible for apoptosis execution. Cleaved Caspase 10 leads to the processing of Caspase 3 and Caspase 7, initiating a caspase cascade and subsequent apoptosis. |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.                                                                                                           |

### pro Caspase 3 Antibody - Protein Information

**Name** CASP3

**Synonyms** CPP32 {ECO:0000303|PubMed:7983002}

#### Function

Thiol protease that acts as a major effector caspase involved in the execution phase of apoptosis

(PubMed:<a href="http://www.uniprot.org/citations/18723680" target="\_blank">18723680</a>, PubMed:<a href="http://www.uniprot.org/citations/20566630" target="\_blank">20566630</a>, PubMed:<a href="http://www.uniprot.org/citations/23650375" target="\_blank">23650375</a>, PubMed:<a href="http://www.uniprot.org/citations/35338844" target="\_blank">35338844</a>, PubMed:<a href="http://www.uniprot.org/citations/35446120" target="\_blank">35446120</a>, PubMed:<a href="http://www.uniprot.org/citations/7596430" target="\_blank">7596430</a>). Following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins (PubMed:<a href="http://www.uniprot.org/citations/18723680" target="\_blank">18723680</a>, PubMed:<a href="http://www.uniprot.org/citations/20566630" target="\_blank">20566630</a>, PubMed:<a href="http://www.uniprot.org/citations/23650375" target="\_blank">23650375</a>, PubMed:<a href="http://www.uniprot.org/citations/7596430" target="\_blank">7596430</a>). At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp-[Gly-217' bond (PubMed:<a href="http://www.uniprot.org/citations/10497198" target="\_blank">10497198</a>, PubMed:<a href="http://www.uniprot.org/citations/16374543" target="\_blank">16374543</a>, PubMed:<a href="http://www.uniprot.org/citations/7596430" target="\_blank">7596430</a>, PubMed:<a href="http://www.uniprot.org/citations/7774019" target="\_blank">7774019</a>). Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain (By similarity). Cleaves and activates caspase-6, -7 and -9 (CASP6, CASP7 and CASP9, respectively) (PubMed:<a href="http://www.uniprot.org/citations/7596430" target="\_blank">7596430</a>). Cleaves and inactivates interleukin-18 (IL18) (PubMed:<a href="http://www.uniprot.org/citations/37993714" target="\_blank">37993714</a>, PubMed:<a href="http://www.uniprot.org/citations/9334240" target="\_blank">9334240</a>). Involved in the cleavage of huntingtin (PubMed:<a href="http://www.uniprot.org/citations/8696339" target="\_blank">8696339</a>). Triggers cell adhesion in sympathetic neurons through RET cleavage (PubMed:<a href="http://www.uniprot.org/citations/21357690" target="\_blank">21357690</a>). Cleaves DSG2 in response to apoptosis resulting in a loss of full length DSG2 at desmosome cell junctions and subsequent loss of cell-cell adhesion (PubMed:<a href="http://www.uniprot.org/citations/17559062" target="\_blank">17559062</a>). Also cleaves JUP in response to apoptosis (PubMed:<a href="http://www.uniprot.org/citations/17559062" target="\_blank">17559062</a>). Cleaves and inhibits serine/threonine-protein kinase AKT1 in response to oxidative stress (PubMed:<a href="http://www.uniprot.org/citations/23152800" target="\_blank">23152800</a>). Acts as an inhibitor of type I interferon production during virus-induced apoptosis by mediating cleavage of antiviral proteins CGAS, IRF3 and MAVS, thereby preventing cytokine overproduction (PubMed:<a href="http://www.uniprot.org/citations/30878284" target="\_blank">30878284</a>). Also involved in pyroptosis by mediating cleavage and activation of gasdermin-E (GSDME) (PubMed:<a href="http://www.uniprot.org/citations/35338844" target="\_blank">35338844</a>, PubMed:<a href="http://www.uniprot.org/citations/35446120" target="\_blank">35446120</a>). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface (PubMed:<a href="http://www.uniprot.org/citations/23845944" target="\_blank">23845944</a>, PubMed:<a href="http://www.uniprot.org/citations/33725486" target="\_blank">33725486</a>). Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC (PubMed:<a href="http://www.uniprot.org/citations/36758104" target="\_blank">36758104</a>, PubMed:<a href="http://www.uniprot.org/citations/36758106" target="\_blank">36758106</a>).

### Cellular Location

Cytoplasm.

### Tissue Location

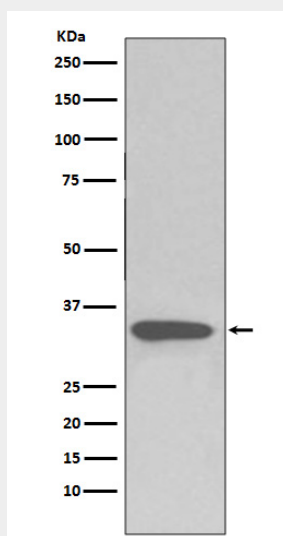
Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

## pro Caspase 3 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](#)

## pro Caspase 3 Antibody - Images



Western blot analysis of pro Caspase 3 expression in Jurkat cell lysate.