

**Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody**  
Catalog # ABO14221

**Specification**

**Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	<a href="#">P42574</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human.

**Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 836

**Other Names**

Caspase-3, CASP-3, 3.4.22.56, Apopain, Cysteine protease CPP32, CPP-32, Protein Yama, SREBP cleavage activity 1, SCA-1, Caspase-3 subunit p17, Caspase-3 subunit p12, CASP3, CPP32 {ECO:0000303|PubMed:7983002}

**Calculated MW**

31608 MW KDa

**Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:100<br>ICC/IF 1:50-1:100

**Subcellular Localization**

Cytoplasm.

**Tissue Specificity**

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.

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human active Caspase-3

**Purification**

Affinity-chromatography

Storage

Store at **-20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

## Anti-active Caspase-3 CASP3 Rabbit Monoclonal 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 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.

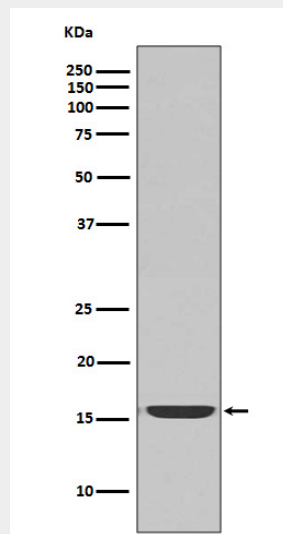
**Tissue Location**

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.

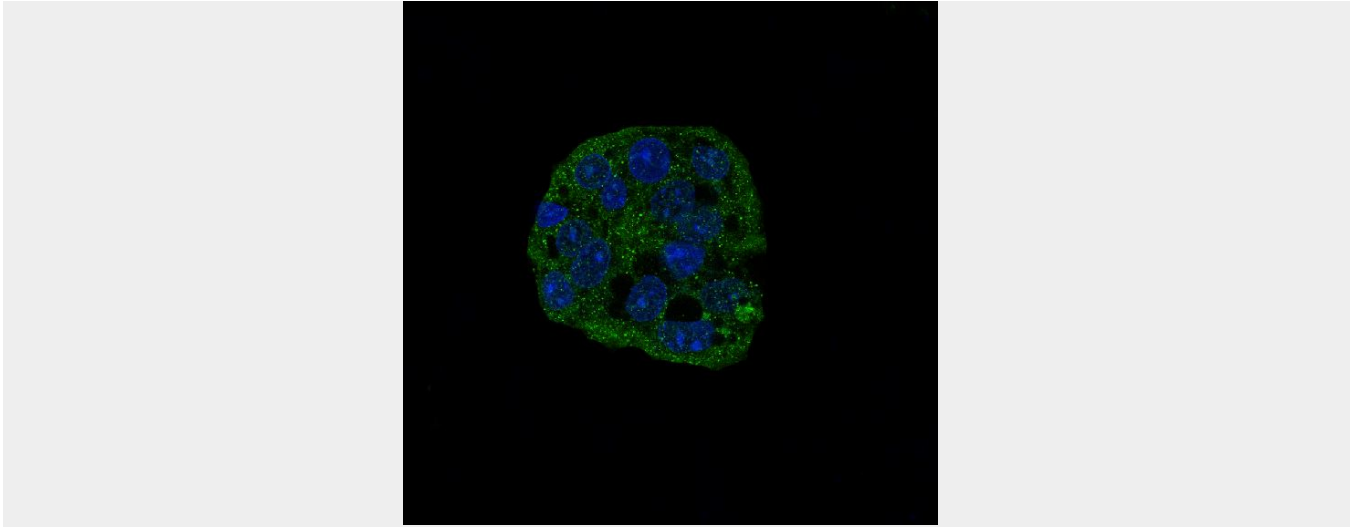
**Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody - Protocols**

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](#)

**Anti-active Caspase-3 CASP3 Rabbit Monoclonal Antibody - Images**

Western blot analysis of active Caspase-3 expression in Jurkat cell lysate treated with Camptothecin.



Immunofluorescent analysis of HepG2 cells, using active Caspase-3 Antibody.