

**Caspase 3 Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF2519a**Specification**

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**Caspase 3 Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">P42574</a>
Other Accession	<a href="#">NP_004337.2</a> , <a href="#">NP_116786.1</a> , <a href="#">836</a>
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	31608

**Caspase 3 Antibody (internal region) - 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

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Caspase 3 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**Caspase 3 Antibody (internal region) - 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: [18723680](http://www.uniprot.org/citations/18723680)), PubMed: [20566630](http://www.uniprot.org/citations/20566630), PubMed: [23650375](http://www.uniprot.org/citations/23650375)),

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.

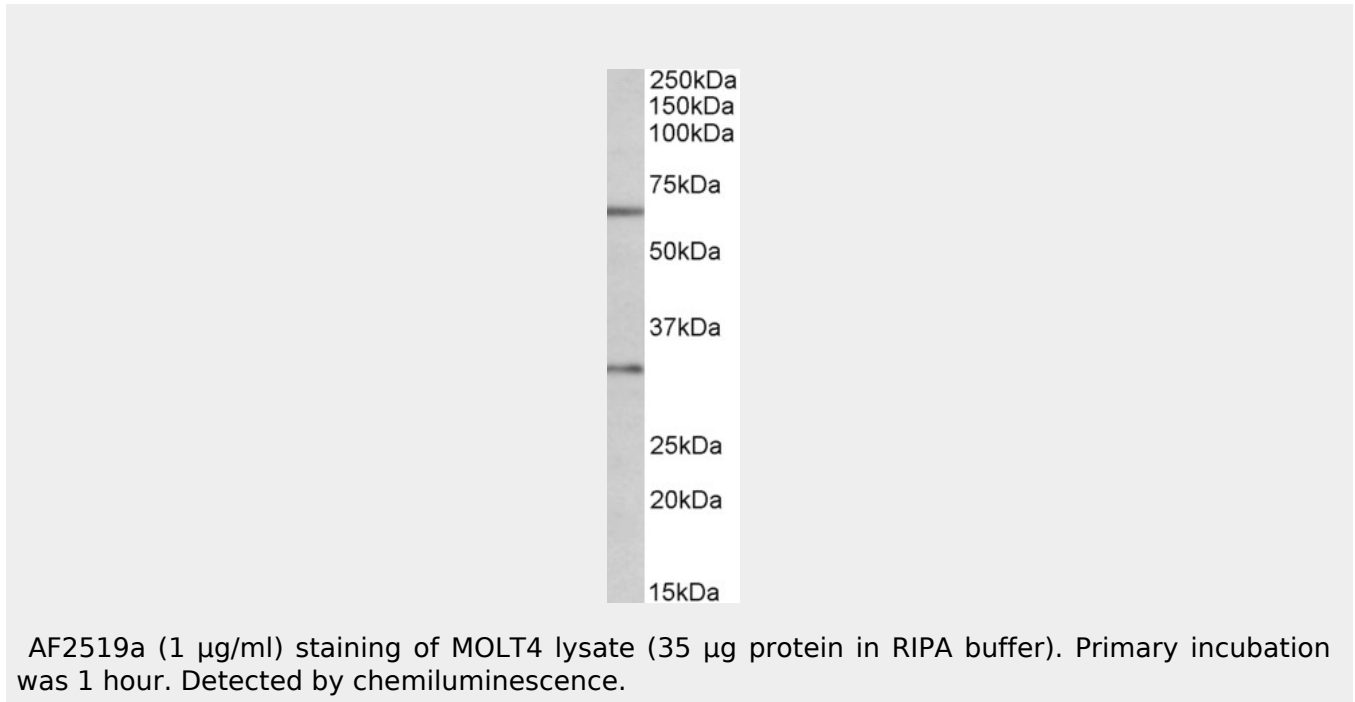
### Caspase 3 Antibody (internal region) - Protocols

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](#)

### Caspase 3 Antibody (internal region) - Images



### Caspase 3 Antibody (internal region) - Background

This antibody is expected to recognise both reported isoforms (NP\_004337.2 and NP\_116786.1).

### Caspase 3 Antibody (internal region) - References

Caspase-3-dependent beta-cell apoptosis in the initiation of autoimmune diabetes mellitus. Liadis N, Murakami K, Eweida M, Elford AR, Sheu L, Gaisano HY, Hakem R, Ohashi PS, Woo M. Mol Cell Biol. 2005 May;25(9):3620-9. PMID: 15831467