

# mouse CASP3 Antibody (N-term S12)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP18708a

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P70677</a>
<b>Other Accession</b>	<a href="#">NP_033940.1</a>
<b>Reactivity</b>	Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB39712
<b>Calculated MW</b>	31475
<b>Antigen Region</b>	1-30

## Additional Information

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<b>Gene ID</b>	12367
<b>Other Names</b>	Caspase-3, CASP-3, Apopain, Cysteine protease CPP32, CPP-32, LICE, Protein Yama, SREBP cleavage activity 1, SCA-1, Caspase-3 subunit p17, Caspase-3 subunit p12, Casp3, Cpp32
<b>Target/Specificity</b>	This mouse CASP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of mouse CASP3.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	mouse CASP3 Antibody (N-term S12) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Casp3
<b>Synonyms</b>	Cpp32 {ECO:0000303   PubMed:8934524}

<b>Function</b>	Thiol protease that acts as a major effector caspase involved in the execution phase of apoptosis (PubMed: <a href="#">16469926</a> , PubMed: <a href="#">8934524</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="#">16469926</a> , PubMed: <a href="#">8934524</a> ). At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp- -Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9 (CASP6, CASP7 and CASP9, respectively). Cleaves and inactivates interleukin-18 (IL18) (By similarity). Triggers cell adhesion in sympathetic neurons through RET cleavage (By similarity). 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 (By similarity). Also cleaves JUP in response to apoptosis (By similarity). Cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes (By similarity). Cleaves and inhibits serine/threonine-protein kinase AKT1 in response to oxidative stress (PubMed: <a href="#">12124386</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="#">30878284</a> ). Also involved in pyroptosis by mediating cleavage and activation of gasdermin-E (GSDME) (By similarity). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface (PubMed: <a href="#">25231987</a> , PubMed: <a href="#">33725486</a> ). Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC (By similarity).
<b>Cellular Location</b>	Cytoplasm {ECO:0000250 UniProtKB:P42574}.
<b>Tissue Location</b>	Highest expression in spleen, lung, liver, kidney and heart (PubMed:9038361). Lower expression in brain, skeletal muscle and testis (PubMed:9038361).

## Background

CASP3 is involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-|-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9 (By similarity). Cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes.

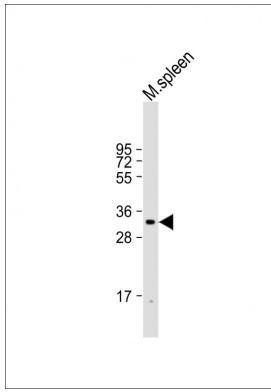
## References

- Srikanth, C.V., et al. *Science* 330(6002):390-393(2010)  
 Li, F., et al. *Cell Stem Cell* 7(4):508-520(2010)  
 Wang, L., et al. *J. Neurosci.* 30(39):13201-13210(2010)  
 Gascon, E., et al. *J. Neurosci.* 30(37):12414-12423(2010)  
 Bohsali, A., et al. *BMC Microbiol.* 10, 237 (2010) :

## Images

Anti-CASP3 Antibody at 1:1000 dilution + mouse spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution

buffer: 5% NFDM/TBST.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.