

CASP3 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM2239b

Specification

CASP3 Antibody - Product Information

Application	WB,E
Primary Accession	P42574
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	31608

CASP3 Antibody - Additional Information

Gene ID 836

Other Names

Caspase-3, CASP-3, Apopain, Cysteine protease CPP32, CPP-32, Protein Yama, SREBP cleavage activity 1, SCA-1, Caspase-3 subunit p17, Caspase-3 subunit p12, CASP3, CPP32

Target/Specificity

Purified His-tagged CASP3 protein was used to produced this monoclonal antibody.

Dilution

WB~~1:2000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

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.

Precautions

CASP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CASP3 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:[18723680](#), PubMed:[20566630](#), PubMed:[23650375](#), PubMed:[35338844](#), PubMed:[35446120](#), PubMed:[7596430](#)). Following cleavage and activation by initiator caspases

(CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins (PubMed:[18723680](#), PubMed:[20566630](#), PubMed:[23650375](#), PubMed:[7596430](#)). At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp-|-Gly-217' bond (PubMed:[10497198](#), PubMed:[16374543](#), PubMed:[7596430](#), PubMed:[7774019](#)). 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:[7596430](#)). Cleaves and inactivates interleukin-18 (IL18) (PubMed:[37993714](#), PubMed:[9334240](#)). Involved in the cleavage of huntingtin (PubMed:[8696339](#)). Triggers cell adhesion in sympathetic neurons through RET cleavage (PubMed:[21357690](#)). Cleaves and inhibits serine/threonine-protein kinase AKT1 in response to oxidative stress (PubMed:[23152800](#)). 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:[30878284](#)). Also involved in pyroptosis by mediating cleavage and activation of gasdermin-E (GSDME) (PubMed:[35338844](#), PubMed:[35446120](#)). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface (PubMed:[23845944](#), PubMed:[33725486](#)). Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC (PubMed:[36758104](#), PubMed:[36758106](#)).

Cellular Location

Cytoplasm.

Tissue Location

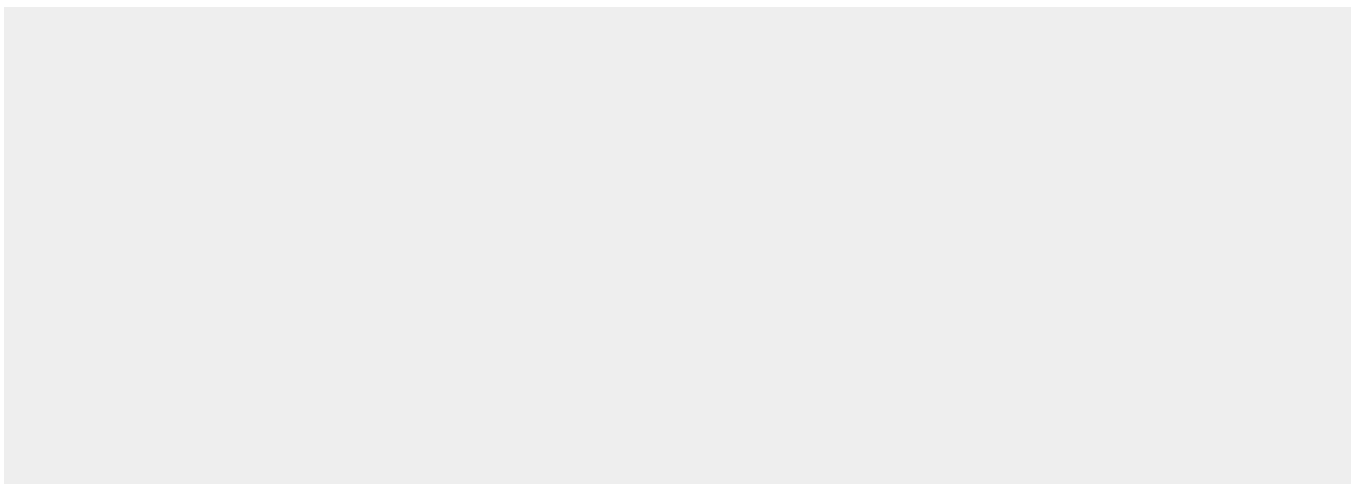
Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

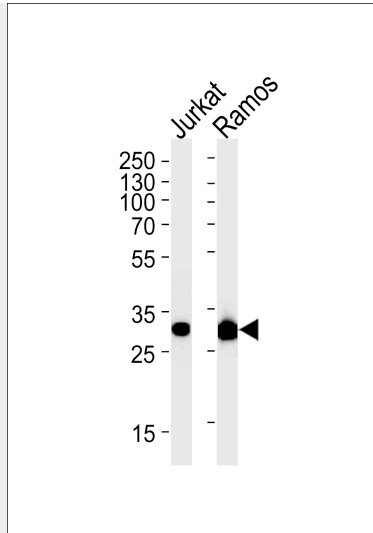
CASP3 Antibody - Protocols

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](#)

CASP3 Antibody - Images





CASP3 Antibody (Cat. #AM2239b) western blot analysis in Jurkat,Ramos cell line lysates (35µg/lane).This demonstrates the CASP3 antibody detected the CASP3 protein (arrow).

CASP3 Antibody - Background

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. Involved in the cleavage of huntingtin. Triggers cell adhesion in sympathetic neurons through RET cleavage.

CASP3 Antibody - References

Choudhary C., et al. Science 325:834-840(2009).
Fernandes-Alnemri T., et al. J. Biol. Chem. 269:30761-30764(1994).
Tewari M., et al. Cell 81:801-809(1995).
Pelletier M., et al. Biochem. Biophys. Res. Commun. 316:93-99(2004).
Ota T., et al. Nat. Genet. 36:40-45(2004).

CASP3 Antibody - Citations

- [Protective Effects and Mechanism of Meretrix meretrix Oligopeptides against Nonalcoholic Fatty Liver Disease.](#)