

CASP3 / Caspase 3 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS12816**Specification**

CASP3 / Caspase 3 Antibody - Product Information

Application	IHC
Primary Accession	P42574
Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Yeast, Bovine, Guinea Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32kDa kDa

CASP3 / Caspase 3 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

Reconstitution & Storage

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions

CASP3 / Caspase 3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CASP3 / 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: [7596430](http://www.uniprot.org/citations/7596430), 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: [35338844](http://www.uniprot.org/citations/35338844), PubMed: [35446120](http://www.uniprot.org/citations/35446120)). Following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins (PubMed: [7596430](http://www.uniprot.org/citations/7596430), 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: [35338844](http://www.uniprot.org/citations/35338844), PubMed: [35446120](http://www.uniprot.org/citations/35446120)).

href="http://www.uniprot.org/citations/20566630" target="_blank">20566630, PubMed:23650375). At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp-[Gly-217' bond (PubMed:7774019, PubMed:7596430, PubMed:10497198, PubMed:16374543). 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:9334240, PubMed:37993714). 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:35446120, PubMed:35338844). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface (PubMed:23845944, PubMed:33725486).

Cellular Location

Cytoplasm.

Tissue Location

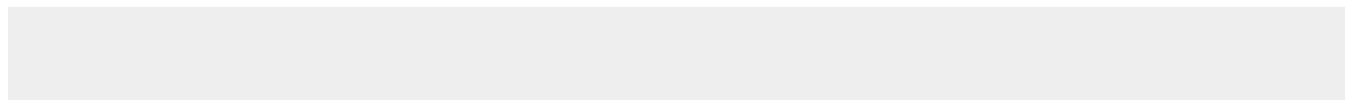
Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

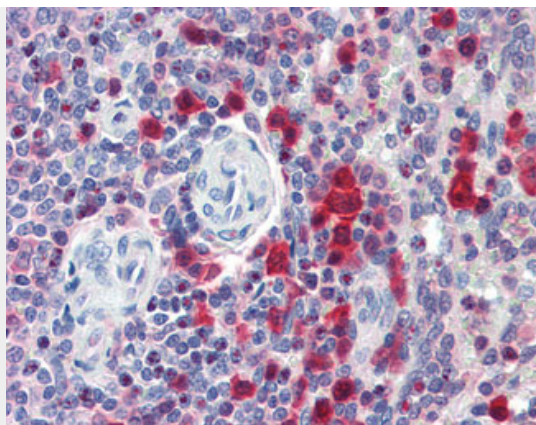
CASP3 / Caspase 3 Antibody - Protocols

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](#)

CASP3 / Caspase 3 Antibody - Images





Anti-Caspase 3 antibody IHC of human spleen.

CASP3 / Caspase 3 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 / Caspase 3 Antibody - References

- 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).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.