

CASP3 / Caspase 3 Antibody (clone 31A1067)
Mouse Monoclonal Antibody
Catalog # ALS12145**Specification**

CASP3 / Caspase 3 Antibody (clone 31A1067) - Product Information

Application	WB
Primary Accession	P42574
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	32kDa KDa

CASP3 / Caspase 3 Antibody (clone 31A1067) - 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

Target/Specificity

Full-length recombinant human caspase-3 protein was used as immunogen. The antibody recognizes an epitope in the large domain subunit of Caspase-3. As such it will recognize pro Caspase-3 and the large subunit cleavage fragment.

Reconstitution & Storage

+4°C or -20°C, Avoid repeated freezing and thawing.

Precautions

CASP3 / Caspase 3 Antibody (clone 31A1067) is for research use only and not for use in diagnostic or therapeutic procedures.

CASP3 / Caspase 3 Antibody (clone 31A1067) - 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, PubMed:18723680, PubMed:20566630, PubMed:23650375, PubMed:35338844, PubMed: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, PubMed:18723680, PubMed: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

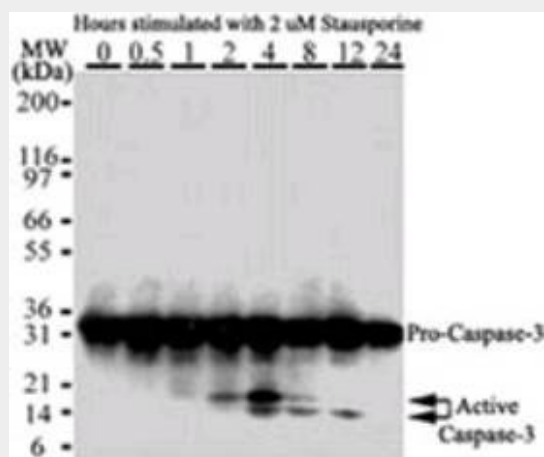
Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

CASP3 / Caspase 3 Antibody (clone 31A1067) - 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 (clone 31A1067) - Images



Western blot of Caspase-3 in HeLa cells.

CASP3 / Caspase 3 Antibody (clone 31A1067) - 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 (clone 31A1067) - 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.