

Caspase-3 (Active) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10009**Specification**

Caspase-3 (Active) Antibody - Product Information

Application	WB
Primary Accession	P42574
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	31608

Caspase-3 (Active) Antibody - Additional Information**Gene ID 836**

Application & Usage	Western blotting (1:50 -1:500 dilutions) and Immunohistochemistry (1:10-1:20 dilutions). However, the optimal concentrations should be determined individually. The antibody preferentially recognizes the p17 fragment of the active caspase-3 in samples from human, mouse, and rat origins
---------------------	---

Other Names

CPP32 , CASP3, apopain, procaspase3, CPP32B, SCA-1, CPP-32, Apopain, Yama

Target/Specificity

Caspase-3 (Active)

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

500 µl antigen affinity purified rabbit anti-Active Caspase-3 antibody in phosphate-buffered saline (PBS) containing 50% glycerol, 1% BSA, and 0.02% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

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

Caspase-3 (Active) 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, 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.

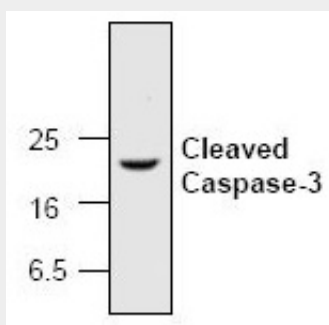
Tissue Location

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.

Caspase-3 (Active) 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](#)

Caspase-3 (Active) Antibody - Images

Western blot analysis of caspase-3 in camptothecin (2 μ M) treated Jurkat cells.

Caspase-3 (Active) Antibody - Background

Caspase-3 has been extensively studied and implicated to play an important role in apoptosis. Active caspase-3 proteolytically cleaves and activates other caspases, as well as relevant targets in the cells (e.g., PARP). The affinity purified antibody recognizing the active forms of caspase-3 provides a new tool for identifying apoptotic cell populations in both tissue sections and cultured cells.