

Anti-Caspase-3 (P17) Antibody
Catalog # ABO11267**Specification**

Anti-Caspase-3 (P17) Antibody - Product Information

Application	WB
Primary Accession	P42574
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Caspase-3(CASP3) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Caspase-3 (P17) 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

Calculated MW

31608 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cytoplasm.

Tissue Specificity

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.

Protein Name

Caspase-3

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Caspase-3(P17)(70-90aa DAANLRETFRNLKYEVNRKND).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the peptidase C14A family.

Anti-Caspase-3 (P17) 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

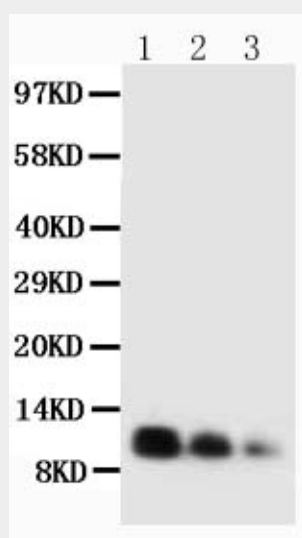
Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

Anti-Caspase-3 (P17) 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](#)

Anti-Caspase-3 (P17) Antibody - Images



Anti-Caspase-3 (P17) antibody, ABO11267, Western blotting
Recombinant Protein Detection
Source: E.coli derived -recombinant human Caspase3, (p17)11KDLane 1: Recombinant Human Caspase-3 (p17) Protein 10ngLane 2: Recombinant Human Caspase-3 (p17) Protein 5ngLane 3:

Recombinant Human Caspase-3 (p17) Protein 2.5ng

Anti-Caspase-3 (P17) Antibody - Background

CASP3 (Caspase3 Apoptosis-Related Cysteine Protease), also known as YAMA, CPP32 or APOPAIN, is a caspase protein that interacts with caspase 8 and caspase 9. It is encoded by the CASP3 gene. The CASP3 protein is a member of the cysteine-aspartic acid protease (caspase) family. Tiso et al. (1996) used radiation hybrid mapping to localize the CPP32 gene to human chromosome 4q33-q35.1. Fernandes-Alnemri et al. (1994) found that overexpression of CPP32 in insect cells induced apoptosis. Coexpression of the 2 CPP32 subunits in insect cells also resulted in apoptosis. Tewari et al. (1995) showed that purified human ICE cleaved the Yama proenzyme into a proteolytically active form and that activated Yama cleaved PARP into the 85-kD apoptotic form.