

Anti-Caspase-3 (P17) Antibody
Catalog # ABO11268**Specification**

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

Application	WB, IHC
Primary Accession	P70677
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Caspase-3(CASP3) detection. Tested with WB, IHC-P in Mouse;Rat.

Reconstitution

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

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

Gene ID 12367

Other Names

Caspase-3, CASP-3, 3.4.22.56, Apopain, Cysteine protease CPP32, CPP-32, LICE, Protein Yama, SREBP cleavage activity 1, SCA-1, Caspase-3 subunit p17, Caspase-3 subunit p12, Casp3, Cpp32

Calculated MW

31475 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Mouse, By Heat

Western blot, 0.1-0.5 µg/ml, Mouse, Rat

Subcellular Localization

Cytoplasm.

Tissue Specificity

Highest expression in spleen, lung, liver, kidney and heart. Lower expression in brain, skeletal muscle and testis.

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 mouse Caspase-3(P17)(67-81aa TDVDAANLRETFMGL), different from the related rat sequence by one

amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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.

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

Name Casp3

Synonyms Cpp32 {ECO:0000303|PubMed:8934524}

Function

Thiol protease that acts as a major effector caspase involved in the execution phase of apoptosis (PubMed: 16469926, PubMed: 8934524). Following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins (PubMed: 16469926, PubMed: 8934524). At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 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 (CASP6, CASP7 and CASP9, respectively). Cleaves and inactivates interleukin-18 (IL18) (By similarity). Triggers cell adhesion in sympathetic neurons through RET cleavage (By similarity). Cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes (By similarity). Cleaves and inhibits serine/threonine- protein kinase AKT1 in response to oxidative stress (PubMed: 12124386). 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) (By similarity). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface (PubMed: 25231987, PubMed: 33725486).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P42574}.

Tissue Location

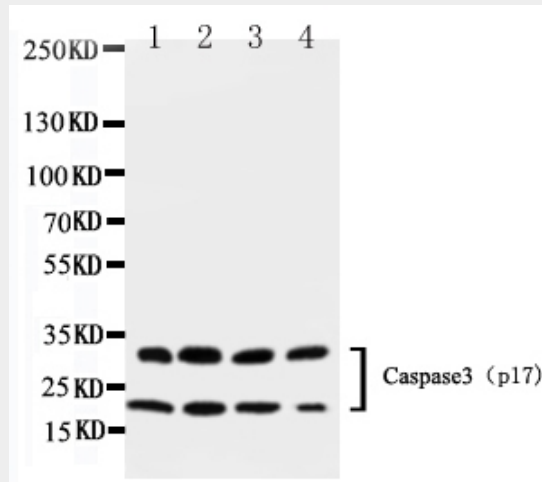
Highest expression in spleen, lung, liver, kidney and heart (PubMed:9038361). Lower expression in brain, skeletal muscle and testis (PubMed:9038361).

Anti-Caspase-3 (P17) Antibody - Protocols

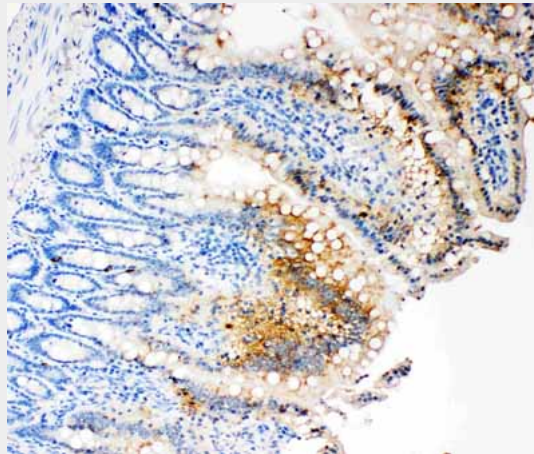
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Caspase-3 (P17) Antibody - Images



Anti-Caspase-3(P17) antibody, ABO11268, Western blotting
Lane 1: Rat Heart Tissue Lysate
Lane 2: Rat Liver Tissue Lysate
Lane 3: Rat Thymus Tissue Lysate
Lane 4: Rat Spleen Tissue Lysate



Anti-Caspase-3(P17) antibody, ABO11268, IHC(P)
IHC(P): Rat Intestine Tissue Lysate

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.