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Anti-Caspase-3 (P17) Antibody

Catalog # ABO11268

Product Information

Application	WB, IHC-P
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Rat, Mouse, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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 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.

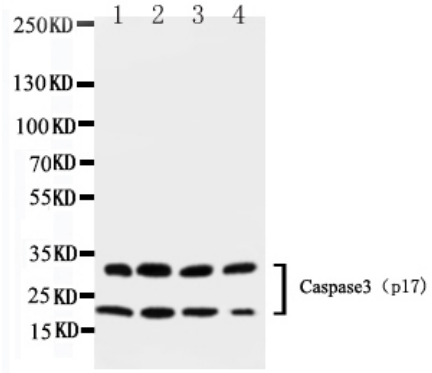
Protein Information

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). Also involved in axon pruning during brain development (PubMed:24478350). Cleaves DSG2 in response to apoptosis resulting in a loss of full length DSG2 at desmosome cell junctions and subsequent loss of cell-cell adhesion (By similarity). Also cleaves JUP in response to apoptosis (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). Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC (By similarity).
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).

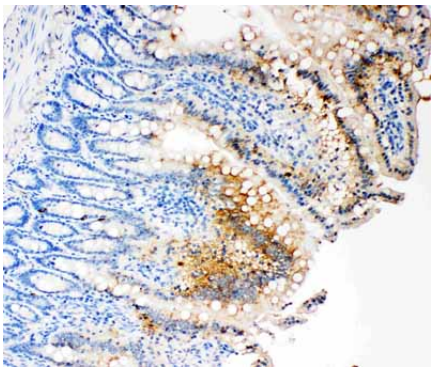
Background

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.

Images



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



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.