

Rabbit Caspase 3 Polyclonal Antibody | anti-CASP3 antibody

Caspase 3 Antibody

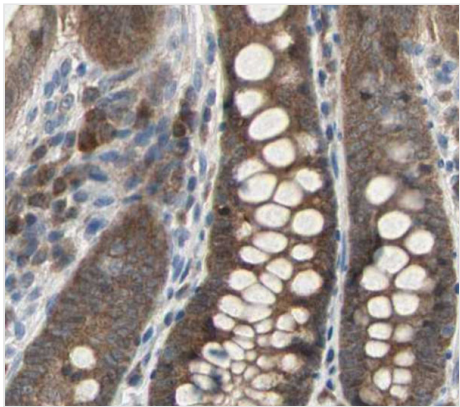
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31093	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

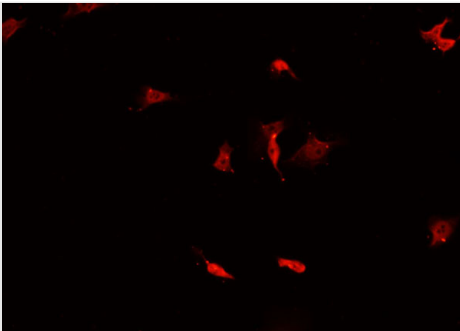
Caspase 3; Polyclonal Antibody; Caspase 3 Antibody; A830040C14Rik; Apopain; CASP-3; CASP3; CASP3_HUMAN; Casp3a; apoptosis-related cysteine peptidase; apoptosis-related cysteine protease; apoptosis-related cysteine protease a; Caspase-3 subunit p12; CC3; CPP-32; CPP32; CPP32B; Cysteine protease CPP32; EC 3.4.22.56; LICE; mldy; OTTHUMP00000165052; OTTHUMP00000165053; OTTHUMP00000165054; PARP cleavage protease; Procaspace3; protein Yama; SCA 1; SCA-1; SREBP cleavage activity 1; Yama; anti-CASP3 antibody

PRODUCT SPECIFICATIONS

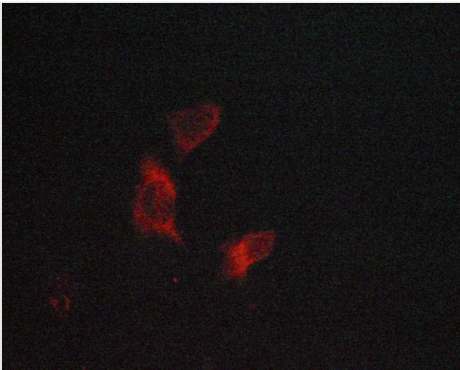
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Caspase 3 antibody detects endogenous levels of total Caspase 3
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	277
Applicable Applications for anti-CASP3 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:200
Immunogen	A synthesized peptide derived from human Caspase 3
Subcellular Location	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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (86%), Bovine (100%), Horse (86%), Sheep (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



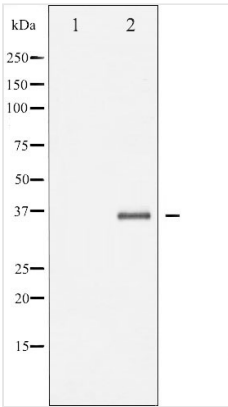
IHC (Immunohistochemistry)
Caspase 3 Antibody for IHC in human colon tissue



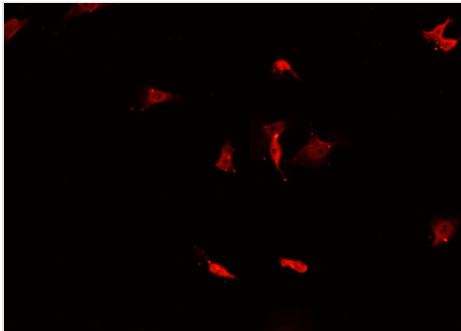
IF (Immunofluorescence)
AAA31093 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



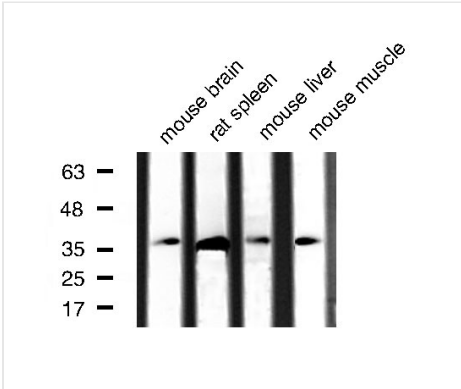
IF (Immunofluorescence)
AAA31093 staining Iovo cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



WB (Western Blot)
Western blot analysis of Caspase 3 expression in Etoposide treated NIH-3T3 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA31093 staining K-562 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)
Western blot analysis of extracts of various tissue sample, using Caspase 3 Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CASP3 antibody	Description: This gene encodes a protein which is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. Function: 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. Subunit Structure: Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 17 kDa (p17) and a 12 kDa (p12) subunit. Interacts with BIRC6/bruce. Post-translational Modifications: Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3 also occur and vice versa. S-nitrosylated on its catalytic site cysteine in unstimulated human cell lines and denitrosylated upon activation of the Fas apoptotic pathway, associated with an increase in intracellular caspase activity. Fas therefore activates caspase-3 not only by inducing the cleavage of the caspase zymogen to its active subunits, but also by stimulating the denitrosylation of its active site thiol. Similarity: Belongs to the peptidase C14A family.
References	Pan L, Zhang Y, Zhao W, Zhou X, Wang C, Deng F; Journal: Cancer Chemother Pharmacol. The cardiac glycoside oleandrin induces apoptosis in human colon cancer cells via the mitochondrial pathway. He Y, Cao X, Guo P, Li X, Shang H, Liu J, Xie M, Xu Y, Liu X; Journal: Free Radic Biol Med. Quercetin induces autophagy via FOXO1-dependent pathways and autophagy suppression enhances quercetin-induced apoptosis in PSMCs in hypoxia. Wang H, Li H, Chen F, Luo J, Gu J, Wang H, Wu H, Xu Y; Journal: J Tradit Chin Med. Baicalin extracted from Huangqin (Radix Scutellariae Baicalensis) induces apoptosis in gastric cancer cells by regulating B cell lymphoma (Bcl-2)/Bcl-2-associated X protein and activating caspase-3 and caspase-9. Yuan Y, Wu J, Li B, Niu J, Tan H, Qiu S; Journal: Sci Rep. Regulation of Signaling Pathways Involved in the Anti-proliferative and Apoptosis-inducing Effects of M22 against Non-small Cell Lung Adenocarcinoma A549 Cells. Song Y, Zhang P, Sun Y, Li X, Chen L, Xiao Y, Xing Y; Journal: Oncotarget. AMPK activation-dependent autophagy compromises oleanolic acid-induced cytotoxicity in human bladder cancer cells.

NCBI AND UNIPROT INFORMATION

NCBI GI #	14790119
NCBI GeneID	836
NCBI Accession #	NP_004337.2
NCBI GenBank Nucleotide #	NM_004346.3
UniProt Accession #	P42574; Q96AN1; Q96KP2; A8K5M2; D3DP53
Molecular Weight	Observed: 37 kDa Predicted: 32 kDa
NCBI Official Full Name	caspase-3 isoform a preproprotein
NCBI Official Synonym Full Names	caspase 3
NCBI Official Symbol	CASP3
NCBI Official Synonym Symbols	CPP32; SCA-1; CPP32B
NCBI Protein Information	caspase-3
UniProt Protein Name	Caspase-3
UniProt Gene Name	CASP3
UniProt Synonym Gene Names	CPP32; CASP-3; CPP-32; SCA-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/caspase-3-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-elisa/31093>