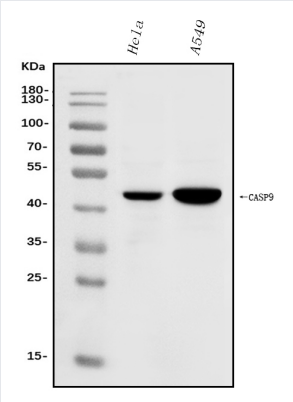
Caspase-9/CASP9 (CASP9) Antibody – Rabbit Polyclonal

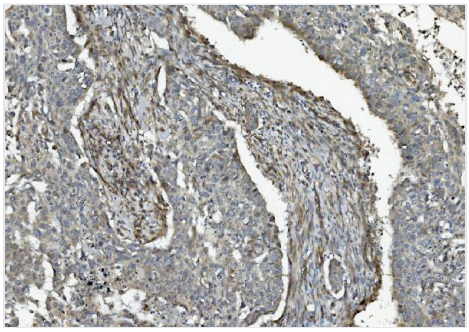
PRODUCT OVERVIEW

Product Name	Caspase-9/CASP9, Polyclonal Antibody
Full Product Name	Anti-Caspase-9/CASP9 Antibody
Product Gene Name	anti-CASP9 antibody
Product Synonym Names	CASP9; MCH6; Caspase-9; CASP-9; EC 3. 4. 22. 62; Apoptotic protease Mch-6; Apoptotic protease-activating factor 3; APAF-3; ICE-like apoptotic protease 6; ICE-LAP6 [Cleaved into: Caspase-9 subunit p35; Caspase-9 subunit p10]; caspase 9
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Rabbit IgG polyclonal antibody for Caspase-9/CASP9 detection.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.
Molecular Weight	46,281 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (15818769..15851285, complement). Location: 1p36.21
OMIM	602234
3D Structure	ModBase 3D Structure for P55211
Immunogen	E Coli-derived human Caspase-9/CASP9 recombinant protein (Position: E3-K410).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems||Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (MBS176453) for IHC(P) and ICC.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-CASP9 antibody	Western Blot (WB), Immunohistochemistry-Paraffin (IHC-P), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS/FCM), Direct ELISA (EIA)
Application Notes for anti-CASP9 antibody	WB: 0.25-0.5ug/ml|Human| IHC-P: 2-5ug/ml|Human| ICC/IF: 5ug/ml|Human| FC/FACS/FCM: 1-3ug/1x106 cells|Human| Direct ELISA: 0.1-0.5ug/ml|Human|

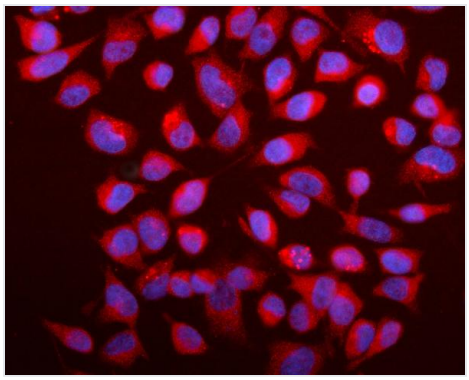
Related Product Information for anti-CASP9 antibody	CASP9 is also known as MCH6 or APAF3. This gene encodes a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This protein can undergo autoproteolytic processing and activation by the apoptosome, a protein complex of cytochrome c and the apoptotic peptidase activating factor 1; this step is thought to be one of the earliest in the caspase activation cascade. This protein is thought to play a central role in apoptosis and to be a tumor suppressor. Alternative splicing results in multiple transcript variants.
Product References and Citations for anti-CASP9 antibody	1. Cingeetham A, et al. Association of caspase9 promoter polymorphisms with the susceptibility of AML in south Indian subjects. Tumour Biol, 2014 Sep. 2. Xu D, et al. Apoptotic block in colon cancer cells may be rectified by lentivirus mediated overexpression of caspase-9. Acta Gastroenterol Belg, 2013 Dec.
Other Notes	Small volumes of anti-CASP9 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CASP9 purchase	MBS1753273 is an antibody targeting CASP9. Also known as Anti-Caspase-9/CASP9 Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-CASP9 antibody
Figure 1. Western blot analysis of Caspase-9/CASP9 using anti-Caspase-9/CASP9 antibody (MBS1753273).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.Lane 1: human Hela whole cell lysatesLane 2: human A549 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-Caspase-9/CASP9 antigen affinity purified polyclonal antibody (Catalog # MBS1753273) at 0. 5 ?g/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # MBS176460) with Tanon 5200 system. A specific band was detected for Caspase-9/CASP9 at approximately 46KD. The expected band size for Caspase-9/CASP9 is at 46KD.

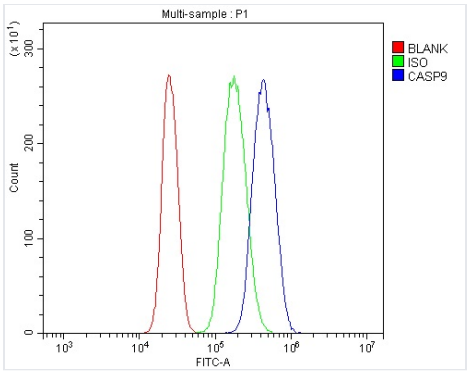


Immunohistochemistry (IHC) of anti-CASP9 antibody
Figure 2. IHC analysis of Caspase-9/CASP9 using anti-Caspase-9/CASP9 antibody (MBS1753273).Caspase-9/CASP9 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2?g/ml rabbit anti-Caspase-9/CASP9 Antibody (MBS1753273) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # MBS176451) with DAB as the chromogen.



Immunofluorescence (IF) of anti-CASP9 antibody

Figure 3. IF analysis of Caspase-9/CASP9 using anti- Caspase-9/CASP9 antibody (MBS1753273).Caspase-9/CASP9 was detected in immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5?g/mL rabbit anti- Caspase-9/CASP9 Antibody (MBS1753273) overnight at 4 degree C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-CASP9 antibody

Figure 4. Flow Cytometry analysis of U937 cells using anti-Caspase-9/CASP9 antibody (MBS1753273).Overlay histogram showing U937 cells stained with MBS1753273 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Caspase-9/CASP9 Antibody (MBS1753273, 1?g/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10?g/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1?g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CASP9. It may not necessarily be applicable to this product.

NCBI GI #	14790124
NCBI GeneID	842
NCBI Accession #	NP_001220.2
UniProt Primary Accession #	P55211
UniProt Secondary Accession #	O95348; Q53Y70; Q5JRU9; Q5UGI1; Q92852; Q9BQ62; Q9UEQ3; Q9UIJ8; B4E1A3
UniProt Related Accession #	P55211
GenBank Nucleotide #	NM_001229.4
NCBI Official Full Name	caspase-9 isoform alpha
NCBI Official Synonym Full Names	caspase 9, apoptosis-related cysteine peptidase
NCBI Official Symbol	CASP9
NCBI Official Synonym Symbols	MCH6; APAF3; APAF-3; PPP1R56; ICE-LAP6
UniProt Protein Name	Caspase-9
UniProt Synonym Protein Names	Apoptotic protease Mch-6; Apoptotic protease-activating factor 3; APAF-3; ICE-like apoptotic protease 6
Protein Family	Caspase
UniProt Gene Name	CASP9
UniProt Synonym Gene Names	MCH6; CASP-9; APAF-3; ICE-LAP6
UniProt Entry Name	CASP9_HUMAN
NCBI Protein Information	caspase-9; apoptotic protease MCH-6; ICE-like apoptotic protease 6; apoptotic protease activating factor 3; protein phosphatase 1, regulatory subunit 56

NCBI Summary for CASP9	This gene encodes 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 two subunits, large and small, that dimerize to form the active enzyme. This protein can undergo autoproteolytic processing and activation by the apoptosome, a protein complex of cytochrome c and the apoptotic peptidase activating factor 1; this step is thought to be one of the earliest in the caspase activation cascade. This protein is thought to play a central role in apoptosis and to be a tumor suppressor. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]
UniProt Comments for CASP9	CASP9: 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. This protein is processed by caspase APAF1; this step is thought to be one of the earliest in the caspase activation cascade. Alternative splicing results in two isoforms. Protein type: Apoptosis; EC 3.4.22.62; Protease Chromosomal Location of Human Ortholog: 1p36.21 Cellular Component: mitochondrion; nucleus; cytosol; apoptosome Molecular Function: peptidase activity; protein binding; cysteine-type endopeptidase activity; enzyme activator activity; protein kinase binding; SH3 domain binding Biological Process: epidermal growth factor receptor signaling pathway; phosphoinositide-mediated signaling; fibroblast growth factor receptor signaling pathway; nerve growth factor receptor signaling pathway; apoptosis; positive regulation of apoptosis; DNA damage response, signal transduction; response to lipopolysaccharide; proteolysis; response to estradiol stimulus; response to antibiotic; DNA damage response, signal transduction resulting in induction of apoptosis; positive regulation of neuron apoptosis; response to cobalt ion; innate immune response; platelet formation; caspase activation via cytochrome c; response to DNA damage stimulus; aging
Research Articles on CASP9	**1.** Induction of caspase-9b expression is due to activation of hnRNP L via phosphorylation to compete/inhibit hnRNP U association with exon 3 of Casp9 mRNA.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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