

Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody
Catalog # ABO14164

Specification

Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC
Primary Accession	P55210
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human.

Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody - Additional Information

Gene ID 840

Other Names

Caspase-7, CASP-7, 3.4.22.60, Apoptotic protease Mch-3, CMH-1, ICE-like apoptotic protease 3, ICE-LAP3, Caspase-7 subunit p20, Caspase-7 subunit p11, CASP7 {ECO:0000303|PubMed:9070923, ECO:0000312|HGNC:HGNC:1508}

Calculated MW

34277 MW KDa

Application Details

WB 1:500-1:1000
IHC 1:50-1:200
ICC/IF 1:50-1:200

Subcellular Localization

Cytoplasm.

Tissue Specificity

Highly expressed in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. No expression in the brain.

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human pro Caspase 7

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody - Protein Information

Name CASP7 {ECO:0000303|PubMed:9070923, ECO:0000312|HGNC:HGNC:1508}

Function

Thiol protease involved in different programmed cell death processes, such as apoptosis, pyroptosis or granzyme-mediated programmed cell death, by proteolytically cleaving target proteins (PubMed: [11257230](http://www.uniprot.org/citations/11257230) target="_blank">11257230, PubMed: [11257231](http://www.uniprot.org/citations/11257231) target="_blank">11257231, PubMed: [11701129](http://www.uniprot.org/citations/11701129) target="_blank">11701129, PubMed: [15314233](http://www.uniprot.org/citations/15314233) target="_blank">15314233, PubMed: [16916640](http://www.uniprot.org/citations/16916640) target="_blank">16916640, PubMed: [17646170](http://www.uniprot.org/citations/17646170) target="_blank">17646170, PubMed: [18723680](http://www.uniprot.org/citations/18723680) target="_blank">18723680, PubMed: [19581639](http://www.uniprot.org/citations/19581639) target="_blank">19581639, PubMed: [8521391](http://www.uniprot.org/citations/8521391) target="_blank">8521391, PubMed: [8567622](http://www.uniprot.org/citations/8567622) target="_blank">8567622, PubMed: [8576161](http://www.uniprot.org/citations/8576161) target="_blank">8576161, PubMed: [9070923](http://www.uniprot.org/citations/9070923) target="_blank">9070923). Has a marked preference for Asp-Glu-Val-Asp (DEVD) consensus sequences, with some plasticity for alternate non-canonical sequences (PubMed: [12824163](http://www.uniprot.org/citations/12824163) target="_blank">12824163, PubMed: [15314233](http://www.uniprot.org/citations/15314233) target="_blank">15314233, PubMed: [17697120](http://www.uniprot.org/citations/17697120) target="_blank">17697120, PubMed: [19581639](http://www.uniprot.org/citations/19581639) target="_blank">19581639, PubMed: [20566630](http://www.uniprot.org/citations/20566630) target="_blank">20566630, PubMed: [23650375](http://www.uniprot.org/citations/23650375) target="_blank">23650375, PubMed: [23897474](http://www.uniprot.org/citations/23897474) target="_blank">23897474, PubMed: [27032039](http://www.uniprot.org/citations/27032039) target="_blank">27032039). Its involvement in the different programmed cell death processes is probably determined by upstream proteases that activate CASP7 (By similarity). Acts as an effector caspase involved in the execution phase of apoptosis: following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of proteins, such as CLSPN, PARP1, PTGES3 and YY1 (PubMed: [10497198](http://www.uniprot.org/citations/10497198) target="_blank">10497198, PubMed: [16123041](http://www.uniprot.org/citations/16123041) target="_blank">16123041, PubMed: [16374543](http://www.uniprot.org/citations/16374543) target="_blank">16374543, PubMed: [16916640](http://www.uniprot.org/citations/16916640) target="_blank">16916640, PubMed: [18723680](http://www.uniprot.org/citations/18723680) target="_blank">18723680, PubMed: [20566630](http://www.uniprot.org/citations/20566630) target="_blank">20566630, PubMed: [21555521](http://www.uniprot.org/citations/21555521) target="_blank">21555521, PubMed: [22184066](http://www.uniprot.org/citations/22184066) target="_blank">22184066, PubMed: [22451931](http://www.uniprot.org/citations/22451931) target="_blank">22451931, PubMed: [27889207](http://www.uniprot.org/citations/27889207) target="_blank">27889207, PubMed: [28863261](http://www.uniprot.org/citations/28863261) target="_blank">28863261, PubMed: [31586028](http://www.uniprot.org/citations/31586028) target="_blank">31586028, PubMed: [34156061](http://www.uniprot.org/citations/34156061) target="_blank">34156061, PubMed: [35338844](http://www.uniprot.org/citations/35338844) target="_blank">35338844, PubMed: [35446120](http://www.uniprot.org/citations/35446120) target="_blank">35446120). Compared to CASP3, acts as a minor executioner caspase and cleaves a limited set of target proteins (PubMed: [18723680](http://www.uniprot.org/citations/18723680) target="_blank">18723680). Acts as a key regulator of the inflammatory response in response to bacterial infection by catalyzing cleavage

and activation of the sphingomyelin phosphodiesterase SMPD1 in the extracellular milieu, thereby promoting membrane repair (PubMed:21157428). Regulates pyroptosis in intestinal epithelial cells: cleaved and activated by CASP1 in response to *S.typhimurium* infection, promoting its secretion to the extracellular milieu, where it catalyzes activation of SMPD1, generating ceramides that repair membranes and counteract the action of gasdermin-D (GSDMD) pores (By similarity). Regulates granzyme-mediated programmed cell death in hepatocytes: cleaved and activated by granzyme B (GZMB) in response to bacterial infection, promoting its secretion to the extracellular milieu, where it catalyzes activation of SMPD1, generating ceramides that repair membranes and counteract the action of perforin (PRF1) pores (By similarity). Following cleavage by CASP1 in response to inflammasome activation, catalyzes processing and inactivation of PARP1, alleviating the transcription repressor activity of PARP1 (PubMed:22464733). 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 (By similarity). Cleaves and activates sterol regulatory element binding proteins (SREBPs) (PubMed:8643593). Cleaves phospholipid scramblase proteins XKR4, XKR8 and XKR9 (By similarity). In case of infection, catalyzes cleavage of Kaposi sarcoma-associated herpesvirus protein ORF57, thereby preventing expression of viral lytic genes (PubMed:20159985).

Cellular Location

Cytoplasm, cytosol. Nucleus. Secreted, extracellular space {ECO:0000250|UniProtKB:P97864}. Note=Following cleavage and activation by CASP1 or granzyme B (GZMB), secreted into the extracellular milieu by passing through the gasdermin-D (GSDMD) pores or perforin (PRF1) pore, respectively {ECO:0000250|UniProtKB:P97864}

Tissue Location

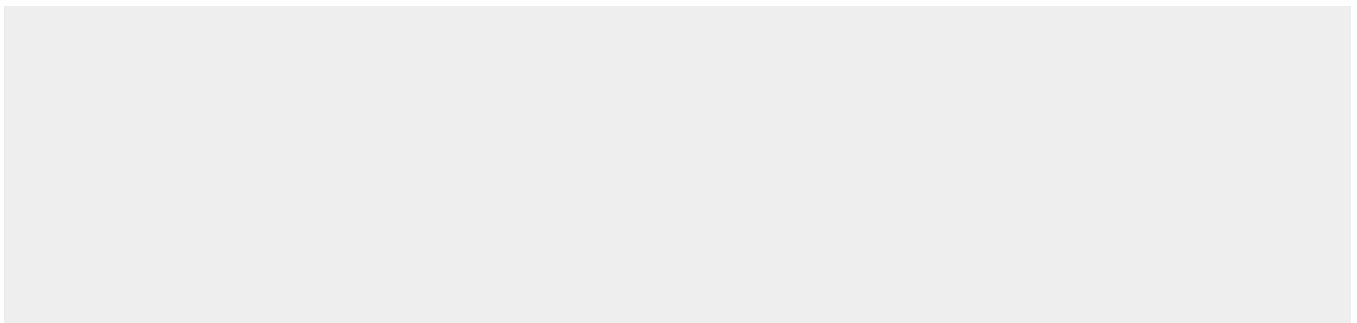
Highly expressed in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. No expression in the brain.

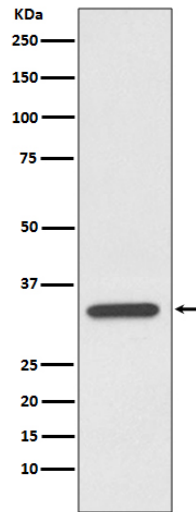
Anti-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody - Protocols

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-pro Caspase 7 CASP7 Rabbit Monoclonal Antibody - Images





Western blot analysis of pro Caspase 7 expression in Jurkat cell lysate.