

Anti-Caspase-7 Picoband Antibody
Catalog # ABO12060**Specification****Anti-Caspase-7 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	P55210
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Caspase-7(CASP7) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution

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

Anti-Caspase-7 Picoband 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, MCH3

Calculated MW

34277 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

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.

Protein Name

Caspase-7

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

E.coli-derived human CASP7 recombinant protein (Position: A117-D198). Human CASP7 shares 92.7% amino acid (aa) sequence identity with both mouse and rat CASP7.

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-7 Picoband 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), PubMed: [11257231](http://www.uniprot.org/citations/11257231), PubMed: [11701129](http://www.uniprot.org/citations/11701129), PubMed: [15314233](http://www.uniprot.org/citations/15314233), PubMed: [16916640](http://www.uniprot.org/citations/16916640), PubMed: [17646170](http://www.uniprot.org/citations/17646170), PubMed: [18723680](http://www.uniprot.org/citations/18723680), PubMed: [19581639](http://www.uniprot.org/citations/19581639), PubMed: [8521391](http://www.uniprot.org/citations/8521391), PubMed: [8567622](http://www.uniprot.org/citations/8567622), PubMed: [8576161](http://www.uniprot.org/citations/8576161), PubMed: [9070923](http://www.uniprot.org/citations/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), PubMed: [15314233](http://www.uniprot.org/citations/15314233), PubMed: [17697120](http://www.uniprot.org/citations/17697120), PubMed: [19581639](http://www.uniprot.org/citations/19581639), PubMed: [20566630](http://www.uniprot.org/citations/20566630), PubMed: [23650375](http://www.uniprot.org/citations/23650375), PubMed: [23897474](http://www.uniprot.org/citations/23897474), PubMed: [27032039](http://www.uniprot.org/citations/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), PubMed: [16123041](http://www.uniprot.org/citations/16123041), PubMed: [16374543](http://www.uniprot.org/citations/16374543), PubMed: [16916640](http://www.uniprot.org/citations/16916640), PubMed: [18723680](http://www.uniprot.org/citations/18723680), PubMed: [20566630](http://www.uniprot.org/citations/20566630), PubMed: [21555521](http://www.uniprot.org/citations/21555521), PubMed: [22184066](http://www.uniprot.org/citations/22184066), PubMed: [22451931](http://www.uniprot.org/citations/22451931), PubMed: [27889207](http://www.uniprot.org/citations/27889207), PubMed: [28863261](http://www.uniprot.org/citations/28863261)).

target="_blank">28863261, PubMed:31586028, PubMed:34156061, PubMed:35338844, PubMed:35446120). Compared to CASP3, acts as a minor executioner caspase and cleaves a limited set of target proteins (PubMed: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

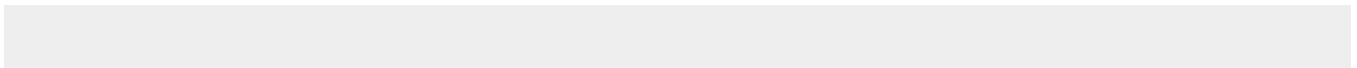
Highly expressed in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. No expression in the brain.

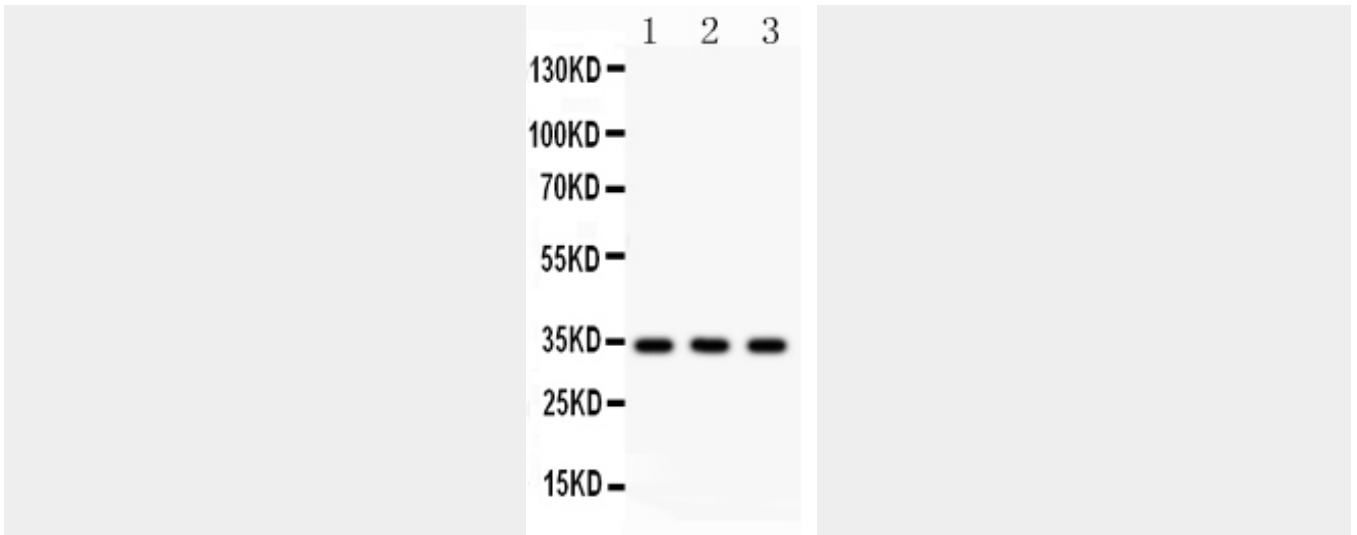
Anti-Caspase-7 Picoband Antibody - Protocols

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

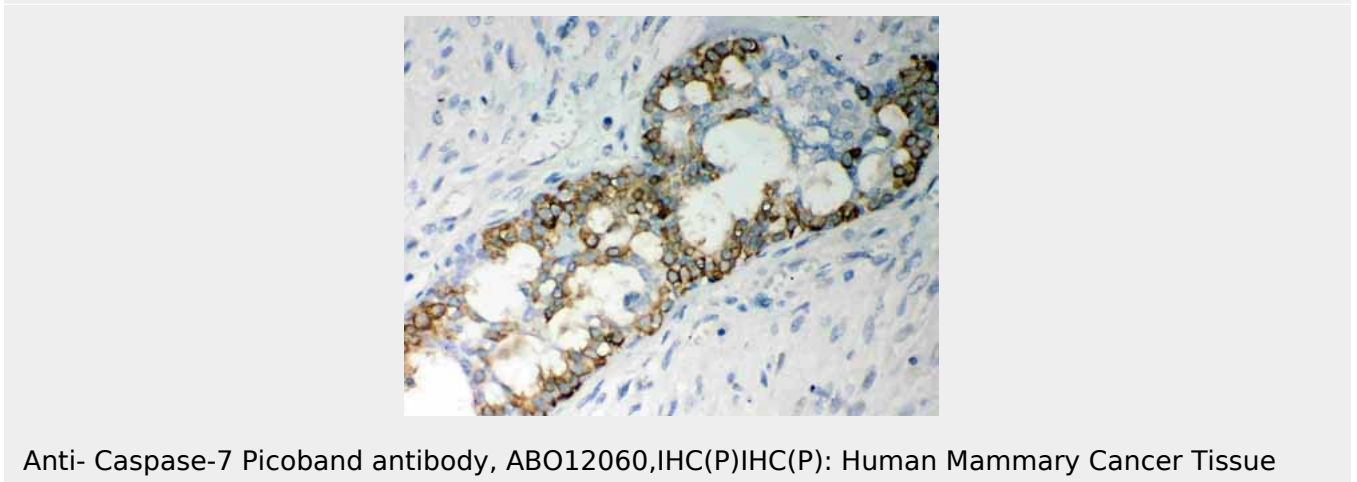
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Caspase-7 Picoband Antibody - Images





Anti- Caspase-7 Picoband antibody, ABO12060, Western blotting All lanes: Anti Caspase-7(ABO12060) at 0.5ug/ml
 Lane 1: A549 Whole Cell Lysate at 40ug
 Lane 2: Rat Spleen Tissue Lysate at 50ug
 Lane 3: Rat Lung Tissue Lysate at 50ug
 Predicted bind size: 34KD
 Observed bind size: 34KD



Anti- Caspase-7 Picoband antibody, ABO12060, IHC(P) IHC(P): Human Mammary Cancer Tissue

Anti-Caspase-7 Picoband Antibody - Background

CASP7, Caspase-7, apoptosis-related cysteine peptidase, is a human protein encoded by the CASP7 gene. CASP7 orthologs have been identified in nearly all mammals for which complete genome data are available. CASP7 is a member of the caspase (cysteine aspartate protease) family of proteins, and has been shown to be an executioner protein of apoptosis. Using radiation hybrid mapping, the CASP7 gene was localized to human chromosome 10q25.1-q25.2. The orderly activation of CASP7 regulates microglia activation through a protein kinase C-delta (PRKCD)-dependent pathway.