

Rabbit Caspase 4 Polyclonal Antibody | anti-CASP4 antibody

Anti-Caspase 4 Picoband antibody

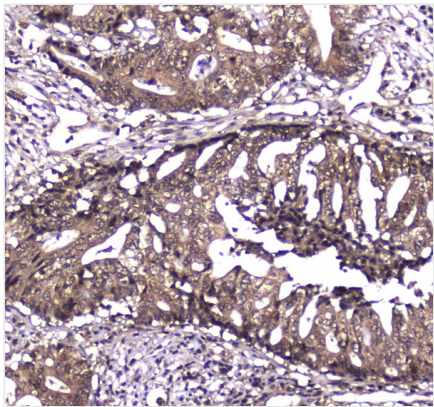
CATALOG # AAA124698	HOST Rabbit	REACTIVITY Human No cross reactivity with other proteins.	APPLICATIONS Western Blot, Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

Caspase 4; Polyclonal Antibody; Anti-Caspase 4 Picoband antibody; Caspase-4; CASP-4; anti-CASP4 antibody

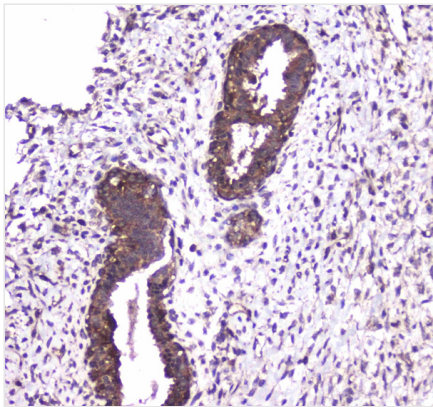
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	157
Applicable Applications for anti-CASP4 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Immunogen	E Coli-derived human Caspase 4 recombinant protein (Position: H111-R194).
Subcellular Localization	Cytoplasm, cytosol.
Tissue Specificity	Widely expressed, including in keratinocytes and colonic and small intestinal epithelial cells (at protein level). Not detected in brain.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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.



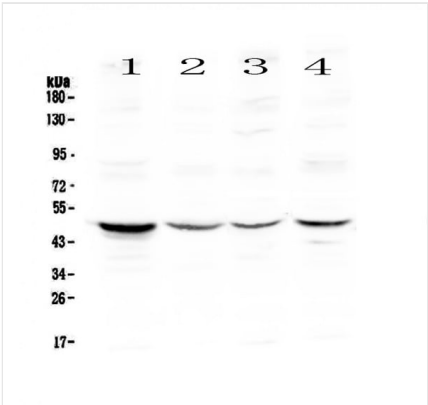
IHC (Immunohistochemistry)

Figure 3. IHC analysis of Caspase 4 using anti-Caspase 4 antibody (AAA124698).Caspase 4 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Caspase 4 Antibody (AAA124698) 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 Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Caspase 4 using anti-Caspase 4 antibody (AAA124698).Caspase 4 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Caspase 4 Antibody (AAA124698) 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 Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Caspase 4 using anti-Caspase 4 antibody (AAA124698).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 50ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates,Lane 2: human COLO-320 whole cell lysates,Lane 3: human SW620 whole cell lysates,Lane 4: human HepG2 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 4 antigen affinity purified polyclonal antibody at 0.5ug/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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Caspase 4 at approximately 48KD. The expected band size for Caspase 4 is at 43KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CASP4 antibody	Description: Caspase 4 is an enzyme that proteolytically cleaves other proteins at an aspartic acid residue, and belongs to a family of cysteine proteases called caspases. The Caspase 4 gene is mapped to a P1 clone containing the ICE gene, which is located at chromosome 11q22.2-q22.3. It contains 8 coding exons. The function of caspase 4 is not fully known, but it is believed to be an inflammatory caspase, along with caspase 1, caspase 5 (and the murine homolog caspase 11), with a role in the immune system. Protein Function: Inflammatory caspase (PubMed: 7797510, PubMed: 23516580, PubMed: 25119034). Essential effector of NLRP3 inflammasome- dependent CASP1 activation and IL1B and IL18 secretion in response to non-canonical activators, such as UVB radiation, cholera enterotoxin subunit B and cytosolic LPS (PubMed: 22246630, PubMed: 26174085, PubMed: 26173988, PubMed: 26508369, PubMed: 25964352). Independently of NLRP3 inflammasome and CASP1, promotes pyroptosis, through GSDMD cleavage and activation, and IL1A, IL18 and HMGB1 release in response to non-canonical inflammasome activators (PubMed: 24879791, PubMed: 25964352). Plays a crucial role in the restriction of Salmonella typhimurium replication in colonic epithelial cells during infection (PubMed: 25121752). In later stages of the infection, LPS from cytosolic Salmonella triggers CASP4 activation, which ultimately results in pyroptosis of infected cells and their extrusion into the gut lumen, as well as in IL18 secretion. Pyroptosis limits bacterial replication, while cytokine secretion promotes the recruitment and activation of immune cells and triggers mucosal inflammation. Involved in LPS-induced IL6 secretion; this activity may not require caspase enzymatic activity (PubMed: 26508369). Involved in cell death induced by endoplasmic reticulum stress and by treatment with cytotoxic APP peptides found Alzheimer's patient brains (PubMed: 15123740, PubMed: 22246630, PubMed: 23661706). Activated by direct binding to LPS without the need of an upstream sensor (PubMed: 25119034). Does not directly process IL1B (PubMed: 7743998, PubMed: 7797592, PubMed: 7797510). During non- canonical inflammasome activation, cuts MB21D1 and may play a role in the regulation of antiviral innate immune activation (PubMed: 28314590).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502577
NCBI GeneID	837
NCBI Accession #	NP_001216.1
NCBI GenBank Nucleotide #	NM_001225.3
UniProt Accession #	P49662; O95601; Q7KYX7; Q9UG96; A2NHL8; A2NHL9; A2NHM0; B3KPZ9; B4DJH5; B4E2D2
Molecular Weight	18,111 Da
NCBI Official Full Name	caspase-4 isoform alpha
NCBI Official Synonym Full Names	caspase 4
NCBI Official Symbol	CASP4
NCBI Official Synonym Symbols	TX; Mih1; ICH-2; Mih1/TX; ICEREL-II; ICE(rel)II
NCBI Protein Information	caspase-4
UniProt Protein Name	Caspase-4
UniProt Gene Name	CASP4
UniProt Synonym Gene Names	ICH2; ICH-2

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/caspase-4-antibody-western-blot-immunohistochemistry-elisa/124698>