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Cleaved-Caspase-1 Antibody
Purified Rabbit Polyclonal Antibody
Catalog # ABV11663

Specification

Cleaved-Caspase-1 Antibody - Product Information

Application	**WB**
Primary Accession	P29466
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**45159**

Cleaved-Caspase-1 Antibody - Additional Information

Gene ID 834

Other Names
CASP-1, Interleukin-1 beta convertase, IL-1BC, Interleukin-1 beta-converting enzyme, ICE, IL-1 beta-converting enzyme, p45, IL1BC, IL1BCE, CASP1

Target/Specificity
Cleaved Caspase-1

Formulation
50 µl purified antibody supplied in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide

Handling
The antibody solution should be gently mixed before use.

Background Descriptions

Precautions
Cleaved-Caspase-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Cleaved-Caspase-1 Antibody - Protein Information

Name CASP1

Synonyms IL1BC, IL1BCE

Function
Thiol protease involved in a variety of inflammatory processes by proteolytically cleaving other proteins, such as the precursors of the inflammatory cytokines interleukin-1 beta (IL1B) and

interleukin 18 (IL18) as well as the pyroptosis inducer Gasdermin-D (GSDMD), into active mature peptides (PubMed:15326478, PubMed:1574116, PubMed:7876192, PubMed:15498465, PubMed:26375003, PubMed:32051255). Plays a key role in cell immunity as an inflammatory response initiator: once activated through formation of an inflammasome complex, it initiates a pro-inflammatory response through the cleavage of the two inflammatory cytokines IL1B and IL18, releasing the mature cytokines which are involved in a variety of inflammatory processes (PubMed:1574116, PubMed:7876192, PubMed:15498465, PubMed:15326478, PubMed:32051255). Cleaves a tetrapeptide after an Asp residue at position P1 (PubMed:1574116, PubMed:7876192, PubMed:15498465). Also initiates pyroptosis, a programmed lytic cell death pathway, through cleavage of GSDMD (PubMed:26375003). In contrast to cleavage of interleukins IL1B and IL1B, recognition and cleavage of GSDMD is not strictly dependent on the consensus cleavage site but depends on an exosite interface on CASP1 that recognizes and binds the Gasdermin-D, C-terminal (GSDMD-CT) part (PubMed:32051255, PubMed:32109412, PubMed:32553275). Cleaves and activates CASP7 in response to bacterial infection, promoting plasma membrane repair (PubMed:22464733). Upon inflammasome activation, during DNA virus infection but not RNA virus challenge, controls antiviral immunity through the cleavage of CGAS, rendering it inactive (PubMed:28314590). In apoptotic cells, cleaves SPHK2 which is released from cells and remains enzymatically active extracellularly (PubMed:20197547).

Cellular Location
Cytoplasm. Cell membrane

Tissue Location
Expressed in larger amounts in spleen and lung. Detected in liver, heart, small intestine, colon, thymus, prostate, skeletal muscle, peripheral blood leukocytes, kidney and testis. No expression in the brain.

Cleaved-Caspase-1 Antibody - Protocols

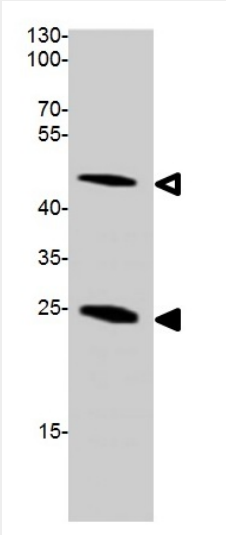
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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- Cell Culture

Cleaved-Caspase-1 Antibody - Images



Western blot analysis of anti-cleaved-caspase-1 with 3T3 cell lysate. Native form (hollow arrow) and cleaved form (filled arrow) of caspase-1 was deteced using the purified antibody.

Cleaved-Caspase-1 Antibody - Background

Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis. Cleaved-caspase-1 (D210) detects levels of fragment of activated Caspase-1 protein resulting from cleavage adjacent to D210.