

## CASP1 polyclonal antibody

Catalog: BS80260

Host: Rabbit

Reactivity: Mouse, Rat

### BackGround:

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. Plays a key role in cell immunity as an inflammatory response initiator: once activated through formation of an inflammasome complex, it initiates a proinflammatory 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. Cleaves a tetrapeptide after an Asp residue at position P1. Also initiates pyroptosis, a programmed lytic cell death pathway, through cleavage of GSDMD. In contrast to cleavage of interleukins IL1B and IL18, 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. Upon inflammasome activation, during DNA virus infection but not RNA virus challenge, controls antiviral immunity through the cleavage of CGAS, rendering it inactive. In apoptotic cells, cleaves SPHK2 which is released from cells and remains enzymatically active extracellularly (By similarity).

### Product:

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

48KDa

### Swiss-Prot:

P29452

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB, 1:500 - 1:2000 | IF/ICC, 1:50 - 1:200

### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

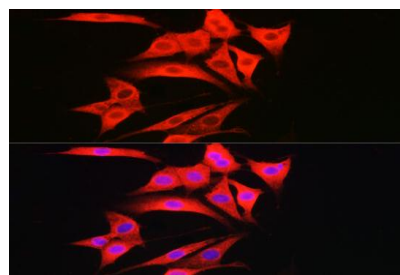
### Modification:

Unmodification

### DATA:

Western blot analysis of extracts of Mouse testis, using CASP1 antibody at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 1s.

Immunofluorescence analysis of C6 cells using CASP1 Rabbit pAb at dilution of 1:50. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of NIH/3T3 cells using CASP1 Rabbit pAb at dilution of 1:50. Blue: DAPI for nuclear staining.

### Note:

For research use only, not for use in diagnostic procedure.

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