bs-10442R **[Primary Antibody]**

Caspase-1 p20 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 12362 **SWISS:** P29452

Target: Caspase-1 p20

Immunogen: KLH conjugated synthetic peptide derived from mouse Caspase-1 p20: 181-280/402.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: This gene encodes a protein which is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing of this gene results in five transcript variants encoding distinct isoforms. [provided by RefSeq].

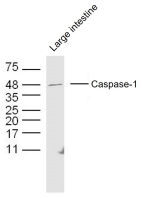
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1μg/Test)

Reactivity: Human, Mouse, Rat

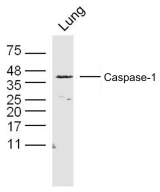
Predicted MW.: 20/46 kDa

Subcellular Location: Cytoplasm

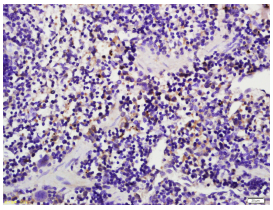
VALIDATION IMAGES



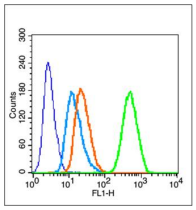
Sample:large intestine (rat) Lysate at 40 ug Primary: Anti-Caspase-1 p20(bs-10442R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 20/46kD Observed band size: 46kD



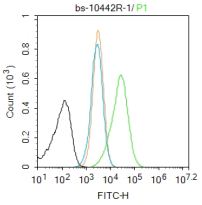
Sample:lung (rat) Lysate at 40 ug Primary: Anti-Caspase-1 p20(bs-10442R)at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 20/46kD Observed band size: 46kD



Tissue/cell: Mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37∩ for 20 min; Incubation: Anti-Caspase-1 p20 Polyclonal Antibody, Unconjugated(bs-10442R) 1:500, overnight at 4ΣC, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): MCF7(fixed with 70%



Blank control:HL-60. Primary Antibody (green

ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice) Primary Antibody (green line): Rabbit Anti-Caspase-1 p20 antibody (bs-10442R), Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

line): Rabbit Anti-Caspase-1 p20 antibody (bs-10442R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF488 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=16.6]** Liu Chunxiao. et al. Targeting P2Y14R protects against necroptosis of intestinal epithelial cells through PKA/CREB/RIPK1 axis in ulcerative colitis. NAT COMMUN. 2024 Mar;15(1):1-16 WB ;Mouse. 38453952
- **[IF=14.7]** Chunxiao Liu. et al.Targeting P2Y$_{14}$R protects against necroptosis of intestinal epithelial cells through PKA/CREB/RIPK1 axis in ulcerative colitis.nature communications.2024 Mar 7;15(1):2083. Western blot ;Mouse. 38453952
- **[IF=11.799]** Chenyu Zhang. et al. The Nrf2-NLRP3-caspase-1 axis mediates the neuroprotective effects of Celastrol in Parkinson's disease. Redox Biol. 2021 Nov;47:102134 IF,IHC ;mouse. 34600334
- **[IF=9.5]** Anjun Song. et al. An Alkaline Nanocage Continuously Activates Inflammasomes by Disrupting Multiorganelle Homeostasis for Efficient Pyroptosis. ACS APPL MATER INTER. 2024;16(19):24295–24307 IF ;Mouse. 38697643
- **[IF=9.381]** Xianglin Pan. et al. Pectic polysaccharide from Smilax china L. ameliorated ulcerative colitis by inhibiting the galectin-3/NLRP3 inflammasome pathway. Carbohyd Polym. 2022 Feb;277:118864 WB ;Mouse. 34893269