

bsm-52441R**[Primary Antibody]****Bioss**
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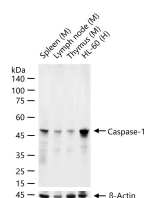
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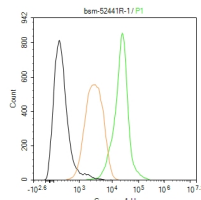
400-901-9800

Caspase-1 Recombinant Rabbit mAb**DATASHEET**

Host: Rabbit	Isotype: IgG	Applications: WB (1:1000-5000) Flow-Cyt (1µg/Test) Reactivity: Human, Mouse (predicted: Rat) Predicted MW.: 46 kDa Observed MW.: 45-47 kDa Subcellular Location: Cytoplasm
Clonality: Recombinant	CloneNo.: 5F17	
GeneID: 834	SWISS: P29466	
Target: Caspase-1		
Immunogen: A synthesized peptide derived from human Caspase 1: 298-404/404.		
Purification: affinity purified by Protein A		
Concentration: 1mg/ml		
Storage: 0.01M TBS(pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. 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].		

VALIDATION IMAGES

25 ug total protein per lane of various lysates (see on figure) probed with Caspase-1 monoclonal antibody, unconjugated (bsm-52441R) at 1:500 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



The THP-1 (H) cells were fixed with 4% PFA (10 min at r.t.) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at r.t.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green): Rabbit Anti-Caspase-1 antibody (bsm-52441R): 1 µg/10⁶ cells; Isotype Control (orange): Rabbit IgG (bs-0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=8.3]** Ting Zheng. et al. Combined transcriptomics and network pharmacology to elucidate the mechanisms of Rutin in treating ischemic stroke rat. PHYTOMEDICINE. 2025 Sep;;157267 WB ;Rat. 40975038
- **[IF=8.3]** Li Xiao. et al. Kaempferol attenuated LPS-induced microglial neurotoxicity by promoting mitophagy to inhibit

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- mtDNA-mediated NLRP3 inflammasome activation. PHYTOMEDICINE. 2025 Oct;;157486 WB ;Mouse. 41202376
- **[IF=4.1]** Ke Xu. et al. Electroacupuncture Inhibits the Early Neuroinflammatory Cascade Triggered by TLR2 in the Prodromal Period of PD. J INFLAMM RES. 2026 Mar WB ;Rat. 41809768
 - **[IF=3.9]** Zhang Yingying. et al. Association between endogenous lactate accumulation and dysregulated activation of the NLRP3 inflammasome pathway in schizophrenia. SCI REP-UK. 2025 Jun;15(1):1-19 IF ;Rat. 40467771
 - **[IF=2.1]** Jinle Lin. et al. Club cell secretory protein 16 promotes cell proliferation and inhibits inflammation and pyroptosis in response to particulate matter 2.5-induced epithelial damage in asthmatic mice...Journal of Thoracic Disease.2025 Feb 28;17(2):753-773. IHC ;Mouse. 40083529