bsm-61090R **[Primary Antibody]**

Cleaved-Caspase 3 p17 Recombinant Rabbit mAb

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DATASHEET

Host: Rabbit
Isotype: IgG
Clonality: Recombinant
CloneNo.: 13C12
GeneID: 836
SWISS: P42574
Target: Cleaved-Caspase 3 p17
Immunogen: A synthesized peptide derived from human Caspase 3: 1-175.
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: The caspase family of cysteine proteases play a key role in apoptosis. Caspase 3 is the most extensively studied apoptotic protein among caspase family members. Caspase 3 is synthesized as inactive pro enzyme that is processed in cells undergoing apoptosis by self proteolysis and/or cleavage by other upstream proteases (e.g. Caspases 8, 9 and 10). The processed form of Caspase 3 consists of large (17kDa) and small (12kDa) subunits which associate to form an active enzyme. Caspase 3 is cleaved at Asp28 Ser29 and Asp175 Ser176. The active Caspase 3 proteolytically cleaves and activates other caspases (e.g. Caspases 6, 7 and 9), as well as relevant targets in the cells (e.g. PARP and DFF). Alternative splicing of this gene results in two transcript variants which encode the same protein. In immunohistochemical studies Caspase 3 expression has been shown to be widespread but not present in all cell types (e.g. commonly reported in epithelial cells of skin, renal proximal tubules and collecting ducts). Differences in the level of Caspase 3 have been reported in cells of short lived nature (eg germinal centre B cells) and those that are long lived (eg mantle zone B cells). Caspase 3 is the predominant caspase involved in the cleavage of amyloid beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease.

Applications: **WB** (1:500-2000)
IHC-P (1:200-1000)
IHC-F (1:200-1000)
IF (1:200-1000)
Flow-Cyt (1:50-100)
IP (1:20-50)

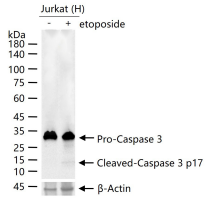
Reactivity: Human, Mouse, Rat

Predicted MW.: 17/32 kDa

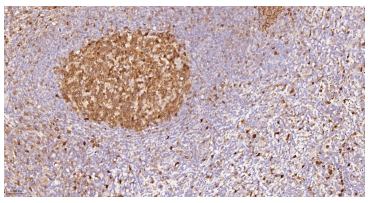
Observed MW.: 32,17 kDa

Subcellular Location: Cytoplasm

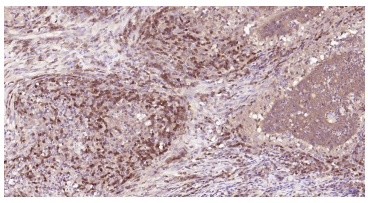
VALIDATION IMAGES



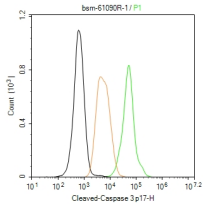
Jurkat (H) cells were treated with or without etoposide treated (25uM) for 5 h, 25 µg total protein per lane of cell lysates (see on figure) probed with Cleaved-Caspase 3 p17 monoclonal antibody, unconjugated (bsm-61090R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Human Tonsil; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Cleaved-Caspase 3 p17 Monoclonal Antibody, Unconjugated(bsm-61090R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Cleaved-Caspase 3 p17 Monoclonal Antibody, Unconjugated(bsm-61090R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



The Hela (treated with Staurosporine (1μM, 4h)) (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-Cleaved-Caspase 3 p17 antibody (bsm-61090R,1:100); Isotype Control (orange): Rabbit IgG (bs-0295P). Blank control (black): PBS. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=14.1]** Jiayu Wang. et al. Discovery of Natural Compound α-Hederin via Large-Scale Screening as a Targeted JAK/STAT3 Inhibitor for Ovarian Cancer Therapy. ADV SCI. 2025 Jul;:e17278 IHC ;Mouse. 40667652
- **[IF=9.6]** Jiahui Yan. et al. Tailored “Three-stage booster” nano-extinguisher for synergistic treatment of severe acute pancreatitis by rectifying mitochondrial dysfunction and inhibiting pancreatic autodigestion. ACTA BIOMATER. 2025 May WB ;Mouse. 40436230
- **[IF=7.7]** Xishuai Tong. et al. Angelica sinensis polysaccharides mitigate cadmium-induced apoptosis in layer chicken chondrocytes by inhibiting the JNK signaling pathway. INT J BIOL MACROMOL. 2024 Oct;:137106 WB ;Chicken. 39486695
- **[IF=4.6]** Miaomiao Zhang. et al. Unlocking the Potential of Perillaldehyde: A Novel Mechanism for Chronic Myeloid Leukemia by Targeting HSP70. MOLECULES. 2025 May;30(11):2294 WB ;Human. 40509182
- **[IF=3.5]** Ruixue Wang. et al. RecQ protein-like 4 drives cisplatin chemosensitivity of cervical cancer cells by modulating annexin A2. DRUG DEVELOP RES. 2024 Oct;85(7):e70003 WB ;Human. 39404003