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## Caspase-3 Rabbit pAb

Catalog Number: bs-0081R

Target Protein: Caspase-3

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: WB (1:500-2000), ELISA (1:5000-10000)

Reactivity: Human, Mouse, Rat

Predicted MW: 17/32 kDa

Entrez Gene: 836

Swiss Prot: P42574

Source: KLH conjugated synthetic peptide derived from human caspase-3 p17 subunit: 80-175/277.

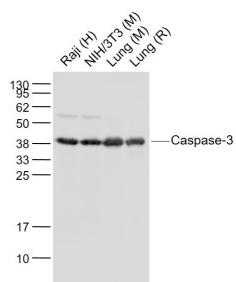
Purification: affinity purified by Protein A

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

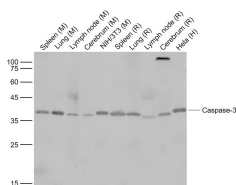
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**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.

## VALIDATION IMAGES



Sample: Lane 1: Raji (Human) Cell Lysate at 30 ug Lane 2: NIH/3T3 (Mouse) Cell Lysate at 30 ug Lane 3: Lung (Mouse) Lysate at 40 ug Lane 4: Lung (Rat) Lysate at 40 ug Primary: Anti-Caspase-3 (bs-0081R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35 kD Observed band size: 37 kD



Sample: Lane 1: Spleen (Mouse) Lysate at 40 ug Lane 2: Lung (Mouse) Lysate at 40 ug Lane 3: Lymph node (Mouse) Lysate at 40 ug Lane 4: Cerebrum (Mouse) Lysate at 40 ug Lane 5: NIH/3T3 (Mouse) Cell Lysate at 30 ug Lane 6: Spleen (Rat) Lysate at 40 ug Lane 7: Lung (Rat) Lysate at 40 ug Lane 8: Lymph node (Rat) Lysate at 40 ug Lane 9: Cerebrum (Rat) Lysate at 40 ug Lane 10: HeLa (Human) Cell Lysate at 30 ug Primary: Anti-Caspase-3 (bs-0081R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35 kD Observed band size: 37 kD

## PRODUCT SPECIFIC PUBLICATIONS

[IF=19] Bingchen Zhang. et al. Precise RNA Editing: Cascade Self-Uncloaking Dual-Prodrug Nanoassemblies Based on CRISPR/Cas13a for Pleiotropic Immunotherapy of PD-L1-Resistant Colorectal Cancer. ADV FUNCT MATER. 2023 Sep;;2305630 WB ; Mouse . 10.1002/adfm.202305630

[IF=18.027] Shikai Liu. et al. On-Demand Generation of Peroxynitrite from an Integrated Two-Dimensional System for Enhanced Tumor Therapy. ACS NANO. 2022;XXXX(XXX):XXX-XXX WB ; Human . 35666853

[IF=16.744] Zhanlin Zhang. et al. Persistent luminescence-activated Janus nanomotors with integration of photodynamic and photothermal cancer therapies. CHEM ENG J. 2022 Dec;;141226 IHC ; Mouse . 10.1016/j.cej.2022.141226

[IF=16.907] Yunxiang Sun. et al. Spontaneous formation of  $\beta$ -sheet nano-barrels during the early aggregation of Alzheimer' s amyloid beta. Nano Today. 2021 Jun;38:101125 WB ; Mouse . 10.1016/j.nantod.2021.101125

[IF=17.1] Zhanlin Zhang. et al. Ultrasound-Chargeable Persistent Luminescence Nanoparticles to Generate Self-Propelled Motion and Photothermal/NO Therapy for Synergistic Tumor Treatment. ACS NANO. 2023;XXXX(XXX):XXX-XXX IHC ; Mouse . 37515593