bs-0050R **[Primary Antibody]**

Caspase-9 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 842 **SWISS:** P55211

Target: Caspase-9

Immunogen: KLH conjugated synthetic peptide derived from human Caspase-9 subunit p35: 271-314/416.

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: Caspase 9 (also known as ICE like apoptotic protease 6 (ICE LAP6), apoptotic protease Mch6, and apoptotic protease activating factor 3 (Apaf3)) is a member of the peptidase family C14 that contains a CARD domain. This caspase is active as a heterotetramer and has been reported to have two isoforms. ProCaspase 9 has been reported to be approximately 47 kD. This caspase is present in the cytosol and, upon activation, translocates to the mitochondria. Caspase 9 is involved in the caspase activation cascade responsible for apoptosis execution and cleaves/activates Caspase 3 and Caspase 6. Caspase 9 is inhibited by the dominant negative isoform, BclXL, cIAP1, cIAP2, XIAP, and Livin. This caspase becomes activated when recruited to Apaf1/cytochrome c complex, and following cleavage by Apaf1, granzyme B, Caspase 3, possibly Caspase 8 and Caspase 10 into large p37 and small p10 subunits. Caspase 9 intereacts with BIRC7 and has been shown to cleave PARP and vimentin.

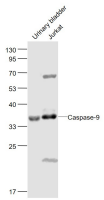
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)
ICC/IF (1:100)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Sheep, Cow)

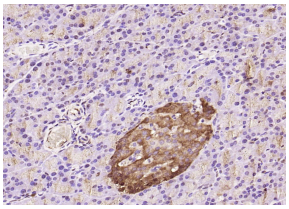
Predicted MW.: 35/50 kDa

Subcellular Location: Cytoplasm

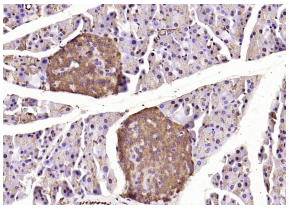
VALIDATION IMAGES



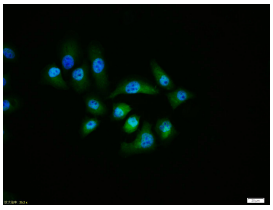
Sample: Urinary bladder(Mouse) Lysate at 40 ug Jurkat(Human) Cell Lysate at 30 ug Primary: Anti-Caspase-9 (bs-20773R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 46-51'35'37 kD Observed band size: 35 kD



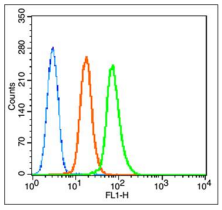
Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Caspase-9) Polyclonal Antibody, Unconjugated (bs-0050R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Caspase-9) Polyclonal Antibody, Unconjugated (bs-0050R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



HepG2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Caspase-9) polyclonal Antibody, Unconjugated (bs-0050R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control: K562 (blue). Primary Antibody:Rabbit Anti-caspase-9 antibody (bs-0050R,Green); Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA. Protocol The cells were fixed with 80% methanol (5 min) and and then permeabilized with 0.01M PBS-Tween for 20 min . Primary antibody (bs-0050R, 1μg /1x10^6 cells) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (30min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=5.008]** Yin, Tao, et al. "Bmi1 inhibition enhances the sensitivity of pancreatic cancer cells to gemcitabine." Oncotarget (2016). WB ;="Human". 27177084
- **[IF=5.195]** Fang Cao. et al. Ginkgo biloba L. extract prevents steroid-induced necrosis of the femoral head by rescuing apoptosis and dysfunction in vascular endothelial cells via the PI3K/AKT/eNOS pathway. J ETHNOPHARMACOL. 2022 Jun;:115476 WB ;Mouse. 35724747
- **[IF=4.4]** Masaya Kusunose. et al. Preoperative Increases in T2-Weighted Fat-Suppressed MRI Signal Intensities Associated with Advanced Tissue Degeneration and Mitochondrial Dysfunction in Rotator Cuff Tears. ARTHROSCOPY. 2024 Aug;: WB ;Human. 39214430
- **[IF=3.571]** Zhang Y et al. Ginsenoside Rg3 prevents cognitive impairment by improving mitochondrial dysfunction in the rat model of Alzheimer's disease. J Agric Food Chem. 2019 Aug 27. WB,IHC ;Rat. 31422666
- **[IF=3.146]** Gao, Hui, et al. "Hispidulin induces mitochondrial apoptosis in acute myeloid leukemia cells by targeting extracellular matrix metalloproteinase inducer."American Journal of Translational Research 8.2 (2016): 1115-1132. WB ;="Human". 27158398