

Basic Information

Product Name	Anti-Caspase 3/CASP3 (p17) Antibody	
Gene Name	CASP3	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human,mouse,rat	
Tested Application	WB,IHC,ICC/IF,FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human Caspase 3 recombinant protein (Position: T67-D175). Human Caspase 3 shares 86% and 90% amino acid (aa) sequences identity with mouse and rat Caspase 3, respectively.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	32KD	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Caspase 3 is a caspase protein which interacts with Survivin, XIAP, CFLAR, Caspase 8, HCLS1, Deleted in Colorectal Cancer, TRAF3 and GroEL. This gene which is located on 4q35 encodes a protein that 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 that undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. And the caspase-3 activation in heart failure sequentially cleaves SRF and generates a truncated SRF that appears to function as a dominant-negative transcription factor. Additionally, the caspase-3 influence on bone mineral density should be considered in any in vivo application of caspase-3 inhibitors to the treatment of human disease. In erythroid precursors undergoing terminal differentiation, Hsp70 prevents active CASP3 from cleaving GATA1 and inducing apoptosis.

Reference

Anti-Caspase 3/CASP3 (p17) Antibody被引用在5文献中。

Selected Validation Data

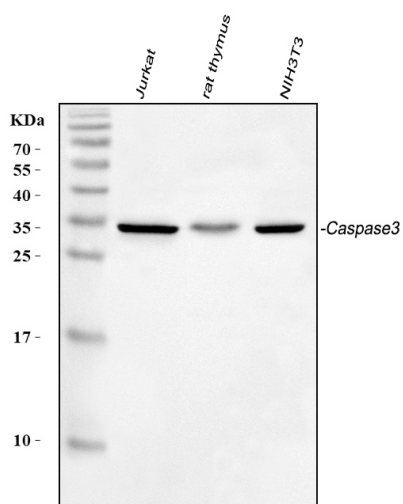


Figure 1. Western blot analysis of anti-CASP3(P17) antibody (PB9188). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: rat thymus tissue lysates,

Lane 3: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CASP3(P17) antigen affinity purified polyclonal antibody (PB9188) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CASP3(P17) at approximately 32 kDa. The expected band size for CASP3(P17) is at 32 kDa.

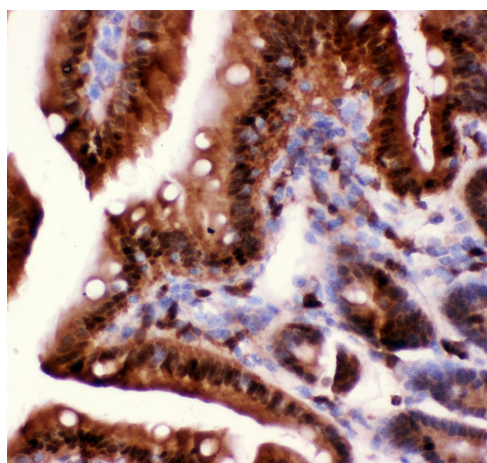


Figure 3. IHC analysis of Caspase3 using anti-Caspase3 antibody (PB9188).Caspase3 was detected in paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Caspase3 Antibody (PB9188) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

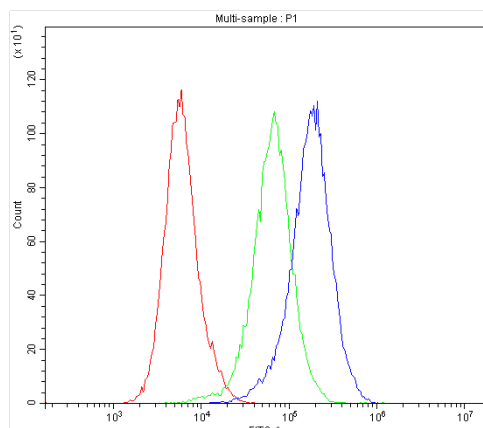


Figure 6. Flow Cytometry analysis of K562 cells using anti-CASP3 antibody (PB9188). Overlay histogram showing K562 cells stained with PB9188 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CASP3 Antibody (PB9188, 1 μ g/1 \times 10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1 \times 10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1 \times 10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.