

Basic Information

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| Product Name | Anti-Caspase 3/CASP3 (p17) Antibody | |
| Gene Name | CASP3 | |
| Source | Rabbit | |
| Clonality | Polyclonal | |
| Isotype | IgG | |
| Species Reactivity | human, mouse, rat | |
| Tested Application | WB, IHC, ICC/IF | |
| Contents | 500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml 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 | 35 kDa,(cleaved)20/17/12 kDa | |
| Dilution Ratios | Western blot (WB): | 1:500-2000 |
| | Immunohistochemistry (IHC): | 1:50-400 |
| | Immunocytochemistry/Immunofluorescence (ICC/IF): | 1:50-400 |
| | (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90文献中。

Selected Validation Data

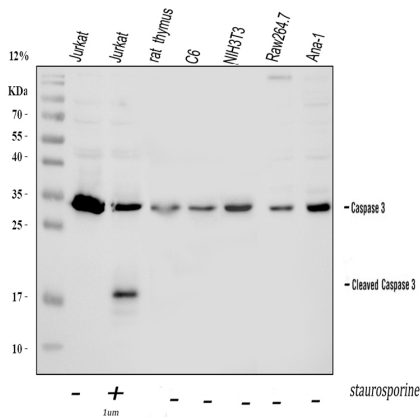


Figure 1. Western blot analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (PB9188). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: human Jurkat whole cell lysates,

Lane 3: rat thymus tissue lysates,

Lane 4: rat C6 whole cell lysates,

Lane 5: mouse NIH/3T3 whole cell lysates,

Lane 6: mouse RAW264.7 whole cell lysates,

Lane 7: mouse ANA-1 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-Caspase 3/CASP3 (p17) antigen affinity purified polyclonal antibody (PB9188) at a dilution of 1:1000 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 Caspase 3/CASP3 (p17) at approximately 35 kDa,(cleaved)20/17/12 kDa. The expected band size for Caspase 3/CASP3 (p17) is at 32 kDa.

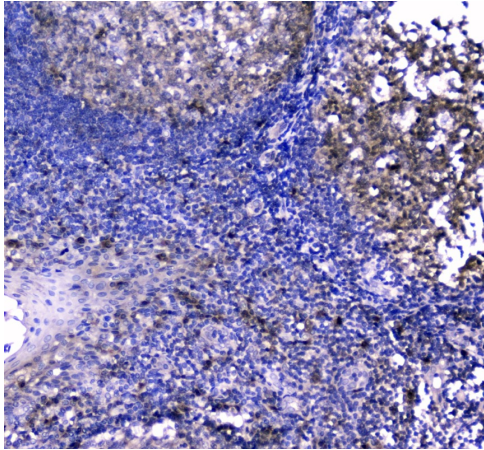


Figure 3. IHC analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (PB9188).

Caspase 3/CASP3 (p17) was detected in a paraffin-embedded section of human tonsil tissue. The tissue section was incubated with rabbit anti-Caspase 3/CASP3 (p17) Antibody (PB9188) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.

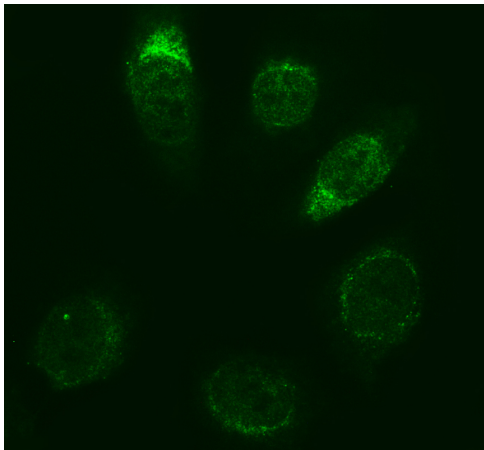


Figure 4. IF analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (PB9188).

Caspase 3/CASP3 (p17) was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-Caspase 3/CASP3 (p17) Antibody (PB9188) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody.