

## Basic Information

<b>Product Name</b>	Anti-Caspase 3/CASP3 (p17) Antibody (Clone#15G8)	
<b>Gene Name</b>	CASP3	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG1	
<b>Species Reactivity</b>	human	
<b>Tested Application</b>	WB, IHC, FCM, ICC/IF	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human Caspase-3 recombinant protein (Position: T67-D175). Human Caspase-3 shares 86% and 90% amino acid (aa) sequence identity with mouse and rat Caspase-3, respectively.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	35 kDa,(cleaved)20/17/12 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(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 (Clone#15G8)被引用在14文献中。

## Selected Validation Data

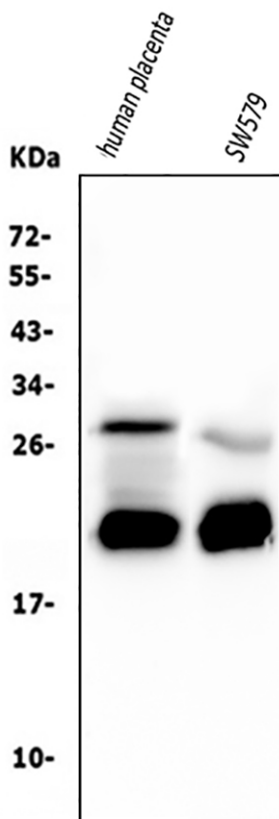


Figure 1. Western blot analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (M00334-7). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: human SW579 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-Caspase 3/CASP3 (p17) antigen affinity purified monoclonal antibody (M00334-7) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). 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.

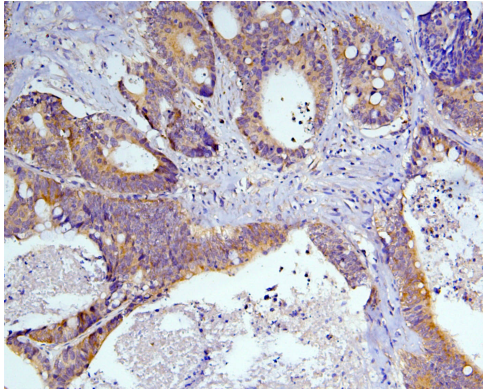


Figure 2. IHC analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (M00334-7).

Caspase 3/CASP3 (p17) was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-Caspase 3/CASP3 (p17) Antibody (M00334-7) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.

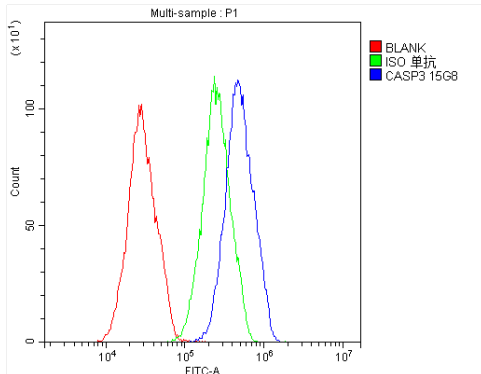


Figure 4. Flow Cytometry analysis of HepG2 cells using anti-Caspase 3/CASP3 (p17) antibody (M00334-7).

Overlay histogram showing HepG2 cells stained with M00334-7 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Caspase 3/CASP3 (p17) Antibody (M00334-7) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

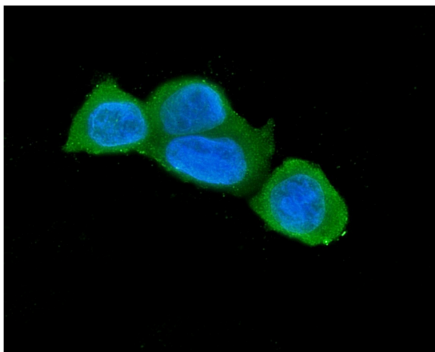


Figure 5. IF analysis of Caspase 3/CASP3 (p17) using anti-Caspase 3/CASP3 (p17) antibody (M00334-7).

Caspase 3/CASP3 (p17) was detected in an immunocytochemical section of MCF-7 cells. The section was incubated with mouse anti-Caspase 3/CASP3 (p17) Antibody (M00334-7) at a dilution of 1:100. Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).