Data Sheet (Cat.No.TMAC-00583)

Anti-Caspase-3 Antibody (3J336)

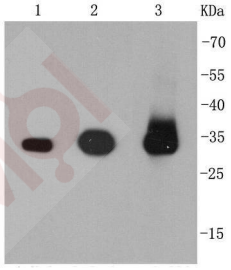
Product Details

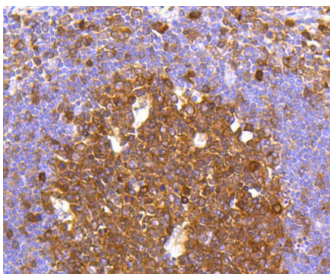
Ig Type:	IgG
Reactivity:	Human,Mouse
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 32 kDa.
Clone:	3J336
Purification:	ProA affinity purified

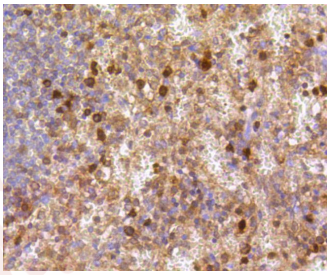
Applications

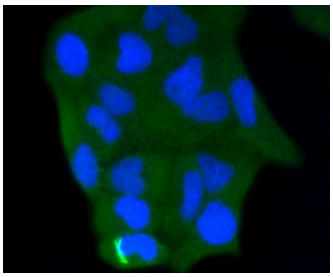
Verified Activity:

1. Western blot analysis of Caspase-3 on different cell lysates using anti-Caspase-3 antibody at 1/1,000 dilution. Positive control: Lane 1: Hela, Lane 2: Jurkat, Lane 3: 293.
2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Caspase-3 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-Caspase-3 antibody. Counter stained with hematoxylin.
4. ICC staining Caspase-3 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.









Application:	FCM,ICC/IF,IHC,IP,WB
Recommended	WB: 1:1000-5000; IHC: 1:50-200; ICC/IF: 1:50-100; FCM: 1:20-50

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein
Uniprot ID:	P42574
Synonyms:	Yama;apopain;SCA-1;CPP32;CPP32B

Research Background

Caspase-3, also known as apopain, SCA-1, Yama and CPP32, is an aspartate-specific cysteine protease that belongs to the ICE subfamily of caspases. Caspase-3 is expressed in cells as an inactive precursor from which the p17 and p11 subunits of the mature caspase-3 are proteolytically generated during apoptosis. The caspase-3 precursor is first cleaved at Asp175-Ser176 to produce the p11 subunit and the p20 peptide. Subsequently, the p20 peptide is cleaved at Asp28-Ser29 to generate the mature p17 subunit. The active caspase-3 enzyme is a heterodimer composed of two p17 and two p11 subunits. At the onset of apoptosis, caspase-3 proteolytically cleaves PARP at an Asp216-Gly217 bond. During the execution of the apoptotic cascade, activated caspase-3 releases SREBP from the membrane of the ER in a proteolytic reaction that is distinct from their normal sterol-dependent activation. Caspase-3 cleaves and activates SREBPs between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Caspase-3 also cleaves and activates caspase-6, -7 and -9. The human caspase-3 gene encodes a cytoplasmic protein that is highly expressed in lung, spleen, heart, liver, kidney and cells of the immune system.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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