

Anti-Caspase 9/CASP9 Antibody Picoband®

Catalog Number: PA1595

About CASP9

CASP9 (CASPASE9), also called APAF3, is an initiator caspase, encoded by the CASP9 gene. The CASP9 gene is mapped to chromosome 1p36.3-p36.1 by FISH. CASP9 is identified as a member of the caspase family that participates in caspase-3 activation in vitro. And it also regarded as the most upstream member of the apoptotic protease cascade that is triggered by cytochrome c and dATP. Its genomic coordinates (GRCh37) is 1:15,818,768-15,851,284. The crystal structure of CASP9 is complex with the BIR3 in an inhibitory domain of XIAP at 2.4-angstrom resolution and the CASP9 gene contains 9 exons and spans approximately 35 kb of genomic DNA. Caspase-9 and APAF1 bind to each other via their respective NH2-terminal CED-3 homologous domains in the presence of cytochrome c and dATP, an event that leads to caspase-9 activation. CASP9 activity increases dramatically upon association with the apoptosome complex. And the majority of Casp9 knockout mice died perinatally with a markedly enlarged and malformed cerebrum caused by reduced apoptosis during brain development.

Overview

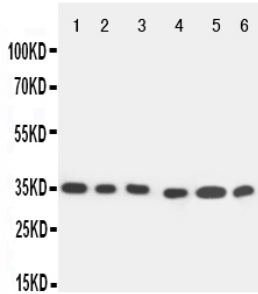
Product Name	Anti-Caspase 9/CASP9 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Caspase 9/CASP9 Antibody catalog # PA1595. Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P55211

Technical Details

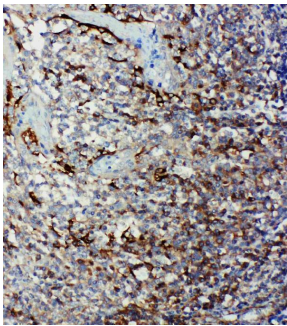
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Caspase-9.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

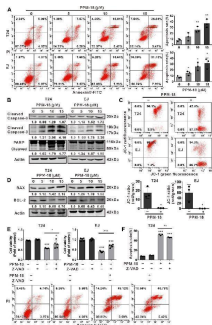
Anti-Caspase 9/CASP9 Antibody Picoband® (PA1595) Images



Anti-Caspase-9 antibody, PA1595, Western blotting
All lanes:
Anti Caspase-9 (PA1595) at 0.5ug/ml
Lane 1: SMMC Whole Cell Lysate at 40ug
Lane 2: MCF-7 Whole Cell Lysate at 40ug
Lane 3: CEM Whole Cell Lysate at 40ug
Lane 4: JURKAT Whole Cell Lysate at 40ug
Lane 5: RAJI Whole Cell Lysate at 40ug
Lane 6: HELA Whole Cell Lysate at 40ug
Predicted bind size: 35KD
Observed bind size: 35KD

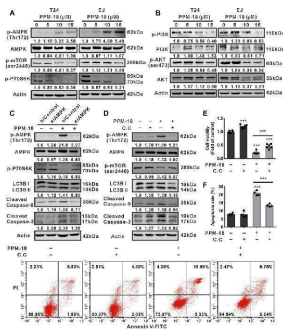


Anti-Caspase-9 antibody, PA1595, IHC(P)
IHC(P): Human Tonsil Tissue



PPM-18 triggers apoptotic cell death in bladder cancer cells. (A) T24 and EJ cells were treated with the indicated concentration of PPM-18, and stained with annexin V-FITC and PI. The apoptotic effect of PPM-18 on T24 and EJ cells was measured by flow cytometry. (B) Western blotting showed the effect of PPM-18 on the expression of cleaved caspase-9, 3, and PARP in T24 and EJ cells. (C) T24 and EJ cells were exposed to 10 uM PPM-18 for 24 h, and stained with JC-1 fluorescent probe. The effect of PPM-18 on the alteration of mitochondria membrane potential was analyzed by flow cytometry. (D) Western blotting displayed the effect of PPM-18 on expression of BAX and BCL-2 in T24 and EJ cells. (E) and (F) The effect of Z-VAD-FMK on PPM-18 reduced the viability of T24 and EJ cells, or PPM-18 triggered apoptosis in T24 cells. Cells treated with 15 uM PPM-18 combined with or without 20 uM Z-VAD-FMK for 24 h, and cell viability and apoptosis were respectively measured by MTS assay and flow cytometry. Data are presented as the mean \pm SD of at least three independent experiments. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$ vs. the control group, or vs. PPM-18+Z-VAD-FMK. Index in PubMed under a CC BY license. PMID: 34305598

PPM-18 induces AMPK-dependent autophagy and apoptotic cell death in bladder cancer cells. (A) and (B) T24 and EJ cells were exposed to the indicated concentration of PPM-18 for 24 h, and the expression of phospho-AMPK, AMPK, phospho-mTORC1, phospho-P70S6K, phospho-PI3K, PI3K, phospho-AKT, and AKT were analyzed by western blot. (C) and (D) Western blot showed the effect of AMPK siRNA or



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Anti-Caspase 9/CASP9 Antibody

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