

Anti-Caspase 4/Casp4 Antibody Picoband®

Catalog Number: A02941-2

About Casp4

Caspase 4 is an enzyme that proteolytically cleaves other proteins at an aspartic acid residue, and belongs to a family of cysteine proteases called caspases. The Caspase 4 gene is mapped to a P1 clone containing the ICE gene, which is located at chromosome 11q22.2-q22.3. It contains 8 coding exons. The function of caspase 4 is not fully known, but it is believed to be an inflammatory caspase, along with caspase 1, caspase 5 (and the murine homolog caspase 11), with a role in the immune system.

Overview

Product Name	Anti-Caspase 4/Casp4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Caspase 4/Casp4 Antibody Picoband® catalog # A02941-2. Tested in ELISA, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	ELISA, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P70343

Technical Details

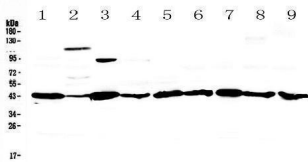
Immunogen	E. coli-derived mouse Caspase 4 recombinant protein (Position: E108-T195).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti- Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	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	Western blot, 0.1-0.5ug/ml Immunocytochemistry/Immunofluorescence, 5ug/ml ELISA, 0.1-0.5ug/ml

Anti-Caspase 4/Casp4 Antibody Picoband® (A02941-2) Images

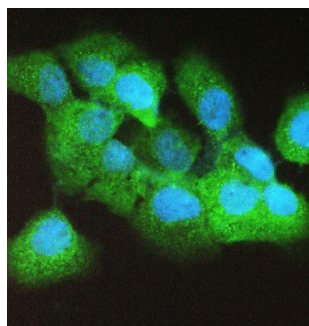


Western blot analysis of Caspase 4 using anti-Caspase 4 antibody (A02941-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse liver tissue lysates, Lane 2: mouse testis tissue lysates, Lane 3: mouse thymus tissue lysates, Lane 4: mouse lung tissue lysates, Lane 5: mouse HEPA1-6 whole cell lysates, Lane 6: mouse NIH3T3 whole cell lysates, Lane 7: mouse SP20 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Caspase 4 antigen affinity purified polyclonal antibody (Catalog # A02941-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Caspase 4 at approximately 43KD. The expected band size for Caspase 4 is at 43KD.

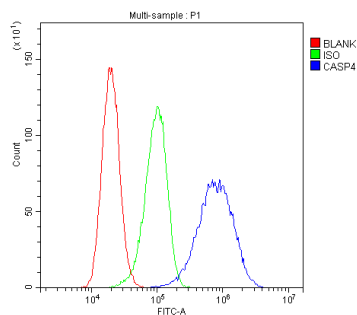


Western blot analysis of Caspase 4 using anti-Caspase 4 antibody (A02941-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: rat testis tissue lysates, Lane 3: rat stomach tissue lysates, Lane 4: rat thymus tissue lysates, Lane 5: human COLO-320 whole cell lysates, Lane 6: human HepG2 whole cell lysates, Lane 7: human 22RV1 whole cell lysates, Lane 8: human PANC-1 whole cell lysates, Lane 9: human SGC-7901 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Caspase 4 antigen affinity purified polyclonal antibody (Catalog # A02941-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Caspase 4 at approximately 43KD. The expected band size for Caspase 4 is at 43KD.

IF analysis of Caspase 4 using anti-Caspase 4 antibody (A02941-2). Caspase 4 was detected in immunocytochemical section of A431 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval



reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Caspase 4 Antibody (A02941-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of A431 cells using anti-Caspase 4 antibody (A02941-2). Overlay histogram showing A431 cells stained with A02941-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Caspase 4 Antibody (A02941-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

1 Publications Citing This Product

1. PubMed ID: 22959511, Chen J, Wei H, Xie B, Wang B, Cheng J, Cheng J. Leuk Res. 2012 Dec;36(12):1526-35. Doi: 10.1016/J.Leukres.2012.08.018. Epub 2012 Sep 7. Endoplasmic Reticulum Stress Contributes To Arsenic Trioxide-Induced Apoptosis In Drug-Sensitive And -Resistant...

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