

Anti-Caspase 1(p20)/CASP1 Antibody Picoband®

Catalog Number: A00048-1

About CASP1

Caspase 1, apoptosis-related cysteine protease, is a cysteine protease that regulates inflammatory processes through its capacity to process and activate the interleukin-1-beta, IL18, and IL33 precursor proteins. Caspase 1 was purified ICE from the cytosol of the THP. human monocytic cell line and found that the active protease was made up of 2 peptides, which they called p20 and p10 based on their apparent molecular masses by SDS-PAGE. It belongs to a family of cysteine proteases known as caspases that always cleave proteins following an aspartic acid residue. The Caspase1 gene consists of 10 exons spanning at least 10.6 kb. The Caspase 1 gene is mapped to 11q23, a site frequently involved in rearrangement in human cancers, including a number of leukemias and lymphomas, by Southern DNA blot analysis of rodent-human hybrids and by in situ hybridization to normal human metaphase chromosomes. Caspase 1 has been shown to induce cell necrosis or pyroptosis and may function in various developmental stages.

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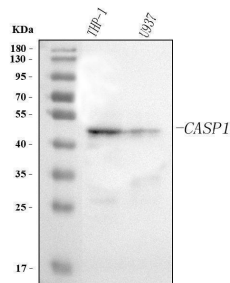
Overview

Product Name	Anti-Caspase 1(p20)/CASP1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Caspase 1(p20)/CASP1 Antibody Picoband® catalog # A00048-1. Tested in ELISA, 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	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P29466

Technical Details

Immunogen	E.coli-derived human Caspase 1(p20)/CASP1 recombinant protein (Position: N132-H404).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human ELISA, 0.1-0.5 ug/ml, -

Anti-Caspase 1(p20)/CASP1 Antibody Picoband® (A00048-1) Images



Western blot analysis of Caspase 1(P20)/CASP1 using anti-Caspase 1(P20)/CASP1 antibody (A00048-1). 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 30 ug of sample under reducing conditions. Lane 1: human THP-2 whole cell lysates, Lane 2: human U937 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 1(P20)/CASP1 antigen affinity purified polyclonal antibody (Catalog # A00048-1) 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 1:5000 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 1(P20)/CASP1 at approximately 47 kDa. The expected band size for Caspase 1(P20)/CASP1 is at 47 kDa.

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For Research Use Only. Not for use in diagnostic procedures.