

Anti-Perforin/PRF1 Antibody Picoband®

Catalog Number: PB9155

About PRF1

PRF1, also known as Perforin-1, is a protein that in humans is encoded by the PRF1 gene. It is mapped to 10q22.1. PRF1 is a cytolytic protein found in the granules of Cytotoxic T lymphocytes (CTLs) and NK cells. Upon degranulation, PRF1 inserts itself into the target cell's plasma membrane, forming a pore. The lytic membrane-inserting part of perforin is the MACPF domain. This region shares homology with cholesterol-dependent cytolysins from Gram-positive bacteria. PRF1 has structural and functional similarities to complement component 9 (C9). Like C9, this protein creates transmembrane tubules and is capable of lysing non-specifically a variety of target cells. This protein is one of the main cytolytic proteins of cytolytic granules, and it is known to be a key effector molecule for T-cell- and natural killer-cell-mediated cytotoxicity. PRF1 is thought to act by creating holes in the plasma membrane which triggers an influx of calcium and initiates membrane repair mechanisms. These repair mechanisms bring perforin and granzymes into early endosomes.

Overview

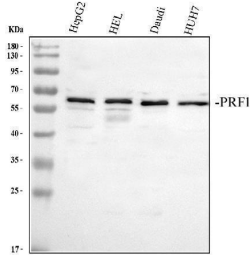
Product Name	Anti-Perforin/PRF1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Perforin/PRF1 Antibody Picoband® catalog # PB9155. Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, 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	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	P14222

Technical Details

Immunogen	E.coli-derived human Perforin recombinant protein (Position: E175-W555). Human Perforin shares 68% amino acid (aa) sequence identity with both mouse and rat Perforin.
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 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

Anti-Perforin/PRF1 Antibody Picoband® (PB9155) Images



Western blot analysis of ADFP/Perforin using anti-ADFP/Perforin antibody (PB9155). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human Daudi whole cell lysates, Lane 4: human HUH7 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-ADFP/Perforin antigen affinity purified polyclonal antibody (Catalog # PB9155) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for ADFP/Perforin at approximately 61 kDa. The expected band size for ADFP/Perforin is at 61 kDa.

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Anti-Perforin/PRF1 Antibody

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