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Anti-Perforin Picoband Antibody

Catalog # ABO11852

Specification

Anti-Perforin Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P14222
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Perforin-1(PRF1) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Perforin Picoband Antibody - Additional Information

Gene ID 5551

Other Names
Perforin-1, P1, Cytolysin, Lymphocyte pore-forming protein, PFP, PRF1, PFP

Calculated MW
61377 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cytoplasmic granule lumen. Secreted. Cell membrane; Multi-pass membrane protein. Endosome lumen. Stored in cytoplasmic granules of cytolytic T-lymphocytes and secreted into the cleft between T-lymphocyte and target cell. Inserts into the cell membrane of target cells and forms pores. Membrane insertion and pore formation requires a major conformation change. May be taken up via endocytosis involving clathrin-coated vesicles and accumulate in a first time in large early endosomes.

Protein Name
Perforin-1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

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.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the complement C6/C7/C8/C9 family.

Anti-Perforin Picoband Antibody - Protein Information

Name PRF1

Synonyms PFP

Function
Pore-forming protein that plays a key role in granzyme- mediated programmed cell death, and in defense against virus-infected or neoplastic cells (PubMed:20889983, PubMed:21037563, PubMed:24558045, PubMed:9058810, PubMed:9164947). Plays an important role in killing other cells that are recognized as non-self by the immune system, e.g. in transplant rejection or some forms of autoimmune disease (PubMed:9058810). Can insert into the membrane of target cells in its calcium-bound form, oligomerize and form large pores (PubMed:20889983, PubMed:21037563). Promotes cytolysis and apoptosis of target cells by mediating the passage and uptake of cytotoxic granzymes (PubMed:20038786, PubMed:20225066, PubMed:24558045, PubMed:32299851). Facilitates the delivery of cationic cargo protein, while anionic or neural proteins are not delivered efficiently (PubMed:24558045). Perforin pores allow the release of mature caspase-7 (CASP7) into the extracellular milieu (By similarity).

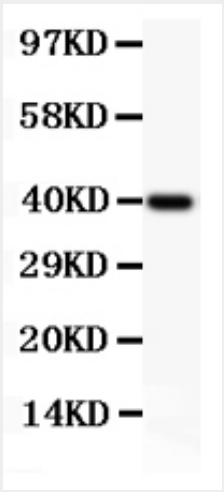
Cellular Location
Cytolytic granule. Secreted. Cell membrane; Multi-pass membrane protein. Endosome lumen. Note=Stored in cytolytic granules of cytolytic T-lymphocytes and secreted into the cleft between T- lymphocyte and target cell (PubMed:20038786). Inserts into the cell membrane of target cells and forms pores (PubMed:20889983). Membrane insertion and pore formation requires a major conformation change (PubMed:20889983). May be taken up via endocytosis involving clathrin-coated vesicles and accumulate in a first time in large early endosomes (PubMed:20038786).

Anti-Perforin Picoband Antibody - Protocols

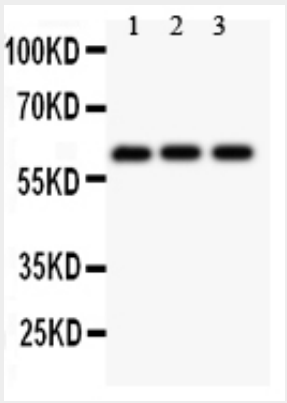
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Perforin Picoband Antibody - Images



Anti-Perforin Picoband antibody, ABO11852-1.jpgAll lanes: Anti Perforin (ABO11852) at 0.5ug/mlWB: Recombinant Human Perforin Protein 0.5ngPredicted bind size: 40KDObserved bind size: 40KD



Anti-Perforin Picoband antibody, ABO11852-2.jpgAll lanes: Anti Perforin (ABO11852) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: COLO320 Whole Cell Lysate at 40ugLane 3: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 61KD Observed bind size: 61KD

Anti-Perforin Picoband Antibody - Background

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 cytolysis. 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.