

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1)
Catalog # ABO16274

Specification

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Product Information

Application	WB, IHC, FC
Primary Accession	P15151
Host	Mouse
Isotype	Mouse IgG2a
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	Lyophilized

Description

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse.

Reconstitution

Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Additional Information

Gene ID 5817

Other Names

Poliovirus receptor, Nectin-like protein 5, NECL-5, CD155, PVR, PVS

Calculated MW

70-80 kDa KDa

Application Details

Western blot, 0.25-0.5 µg/ml, Human
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse
 Flow Cytometry, 1-3 µg/1x10⁶ cells, Human

Contents

Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na₂HPO₄.

Immunogen

E.coli-derived human Poliovirus Receptor/PVR recombinant protein (Position: D28-E331).

Purification

Immunogen affinity purified.

Storage

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.

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Protein Information

Name PVR

Synonyms PVS

Function

Mediates NK cell adhesion and triggers NK cell effector functions. Binds two different NK cell receptors: CD96 and CD226. These interactions accumulate at the cell-cell contact site, leading to the formation of a mature immunological synapse between NK cell and target cell. This may trigger adhesion and secretion of lytic granules and IFN-gamma and activate cytotoxicity of activated NK cells. May also promote NK cell-target cell modular exchange, and PVR transfer to the NK cell. This transfer is more important in some tumor cells expressing a lot of PVR, and may trigger fratricide NK cell activation, providing tumors with a mechanism of immunoevasion. Plays a role in mediating tumor cell invasion and migration.

Cellular Location

[Isoform Alpha]: Cell membrane; Single-pass type I membrane protein [Isoform Beta]: Secreted.

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Images

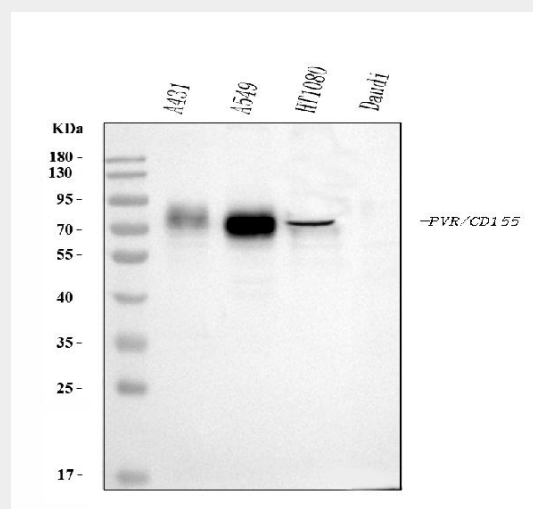


Figure 1. Western blot analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR

antibody (M00664-2).

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 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human HT1080 whole cell lysates,

Lane 4: human Daudi 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 mouse anti-Poliovirus Receptor/PVR antigen affinity purified monoclonal antibody (Catalog # M00664-2) at 0.5 $\mu\text{g}/\text{mL}$ overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for Poliovirus Receptor/PVR at approximately 70-80 kDa. The expected band size for Poliovirus Receptor/PVR is at 45 kDa.

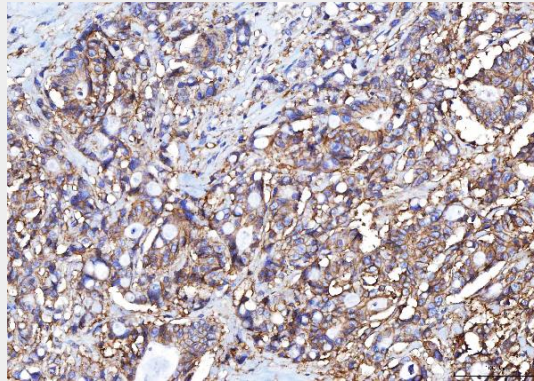


Figure 2. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu\text{g}/\text{ml}$ mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

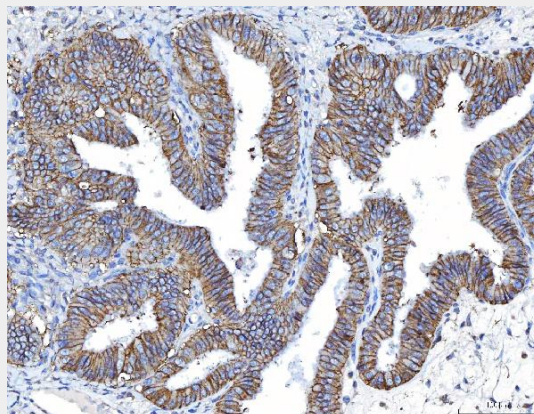


Figure 3. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human endometrial cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

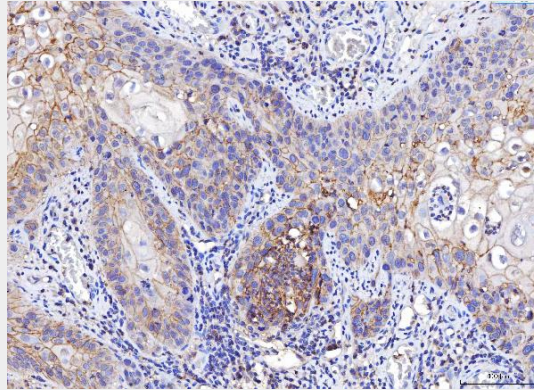


Figure 4. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

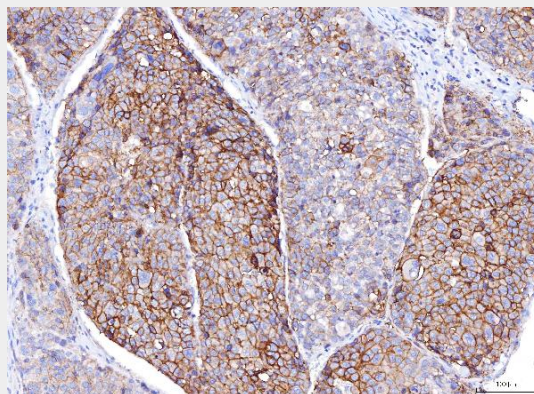


Figure 5. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

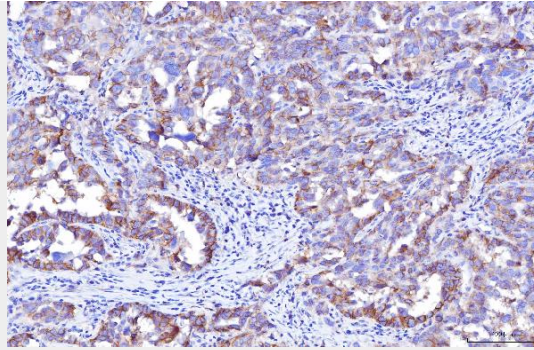


Figure 6. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu\text{g/ml}$ mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

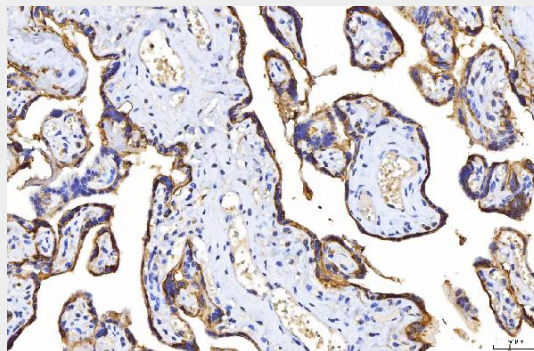


Figure 7. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu\text{g/ml}$ mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

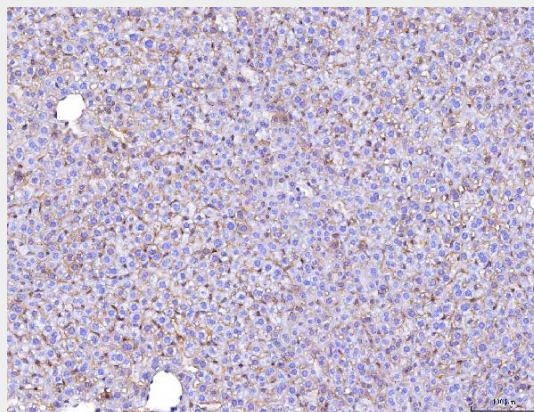


Figure 8. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Poliovirus Receptor/PVR was detected in a paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

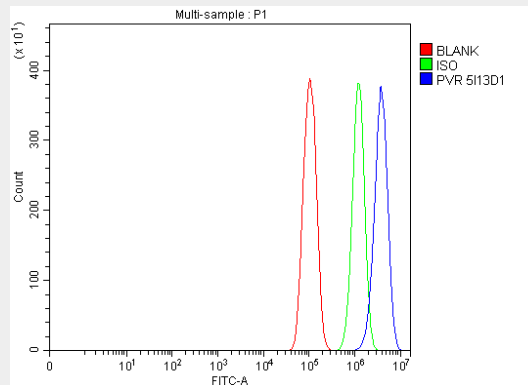


Figure 9. Flow Cytometry analysis of PC-3 cells using anti-Poliovirus Receptor/PVR antibody (M00664-2).

Overlay histogram showing PC-3 cells stained with M00664-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Poliovirus Receptor/PVR Antibody (M00664-2, 1 µg/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 5I13D1) - Background

CD155 (cluster of differentiation 155) also known as the poliovirus receptor is a protein that in humans is encoded by the PVR gene. The protein encoded by this gene is a transmembrane glycoprotein belonging to the immunoglobulin superfamily. The external domain mediates cell attachment to the extracellular matrix molecule vitronectin, while its intracellular domain interacts with the dynein light chain Tctex-1/DYNLT1. The gene is specific to the primate lineage, and serves as a cellular receptor for poliovirus in the first step of poliovirus replication. Multiple transcript variants encoding different isoforms have been found for this gene.