

Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 3B11E9)

Catalog # ABO16275

Product Information

Application	WB, IHC, FC
Primary Accession	P15151
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 3B11E9) . 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.

Additional Information

Gene ID	5817
Other Names	Poliovirus receptor, Nectin-like protein 5, NECL-5, CD155, PVR, PVS
Calculated MW	45303
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/1x10 ⁶ cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Clone Names Immunogen	Clone: 3B11E9 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.

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 accumulates 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.

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.

Images

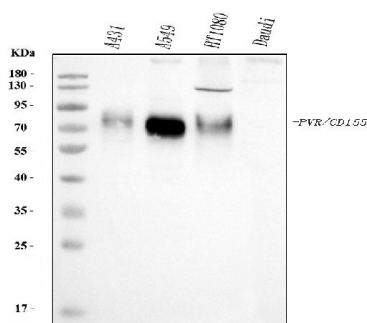


Figure 1. Western blot analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing 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 # M00664-3) at 0.5 µg/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.

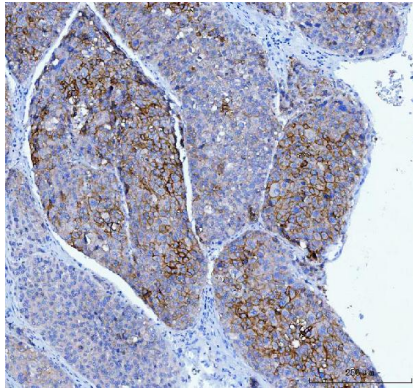


Figure 2. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-3). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). 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 (M00664-3) 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.

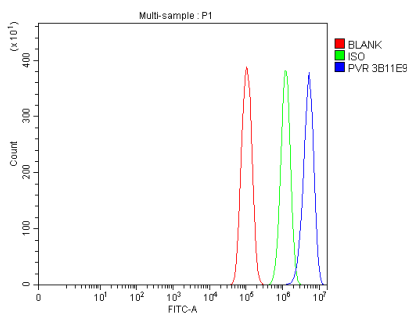


Figure 3. Flow Cytometry analysis of PC-3 cells using anti-Poliovirus Receptor/PVR antibody (M00664-3). Overlay histogram showing PC-3 cells stained with M00664-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Poliovirus Receptor/PVR Antibody (M00664-3, 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.

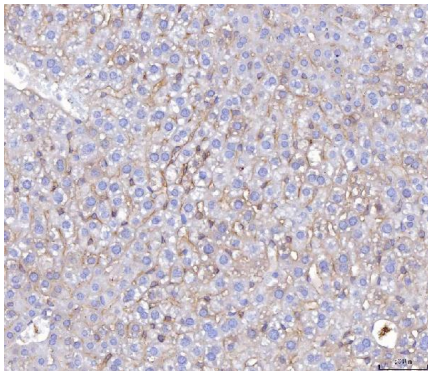


Figure 4. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-3). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of mouse liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). 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 (M00664-3) 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.