

# Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 9B9F1)

Catalog # ABO16273

## Product Information

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|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC                                                                                                                                          |
| <b>Primary Accession</b> | <a href="#">P15151</a>                                                                                                                           |
| <b>Host</b>              | Mouse                                                                                                                                            |
| <b>Isotype</b>           | Mouse IgG1                                                                                                                                       |
| <b>Reactivity</b>        | Human, Mouse                                                                                                                                     |
| <b>Clonality</b>         | Monoclonal                                                                                                                                       |
| <b>Format</b>            | Lyophilized                                                                                                                                      |
| <b>Description</b>       | Anti-Poliovirus Receptor/PVR Antibody Picoband™ (monoclonal, 9B9F1) .<br>Tested in IHC, WB applications. This antibody reacts with Human, Mouse. |
| <b>Reconstitution</b>    | Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.                                                                        |

## Additional Information

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|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                         | 5817                                                                                                                                                                                                    |
| <b>Other Names</b>                     | Poliovirus receptor, Nectin-like protein 5, NECL-5, CD155, PVR, PVS                                                                                                                                     |
| <b>Calculated MW</b>                   | 45303                                                                                                                                                                                                   |
| <b>Application Details</b>             | Western blot, 0.25-0.5 µg/ml, Human<br>Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human,<br>Mouse                                                                                      |
| <b>Source</b>                          | Eukaryota                                                                                                                                                                                               |
| <b>Contents</b>                        | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                            |
| <b>Clone Names</b><br><b>Immunogen</b> | Clone: 9B9F1<br>E.coli-derived human Poliovirus Receptor/PVR recombinant protein (Position:<br>D28-E331).                                                                                               |
| <b>Purification</b>                    | Immunogen affinity purified.                                                                                                                                                                            |
| <b>Storage</b>                         | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one<br>month. It can also be aliquotted and stored frozen at -20°C for six months.<br>Avoid repeated freezing and thawing. |

## Protein Information

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| <b>Name</b>              | PVR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>          | PVS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Function</b>          | 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. |
| <b>Cellular Location</b> | [Isoform Alpha]: Cell membrane; Single-pass type I membrane protein<br>[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

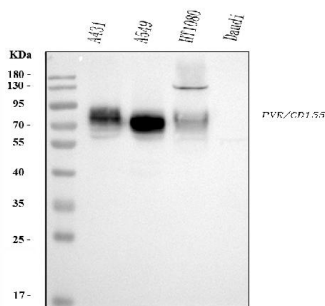


Figure 1. Western blot analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing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

Lane 1: human 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 # M00664-1) 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.

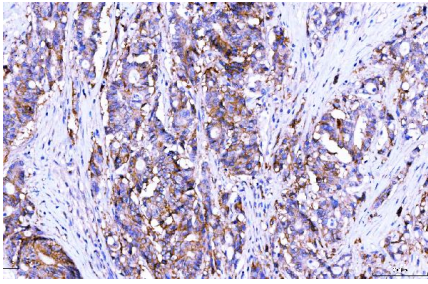


Figure 2. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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.

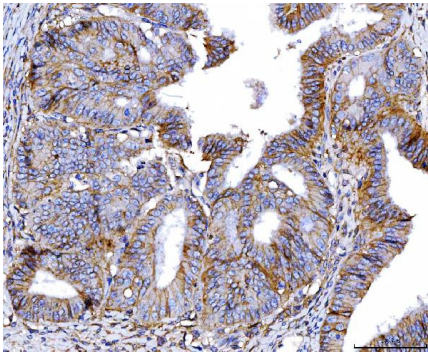


Figure 3. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human endometrial cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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.

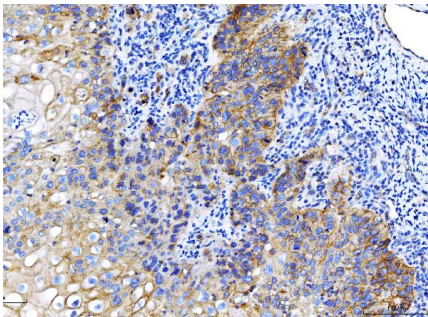


Figure 4. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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.

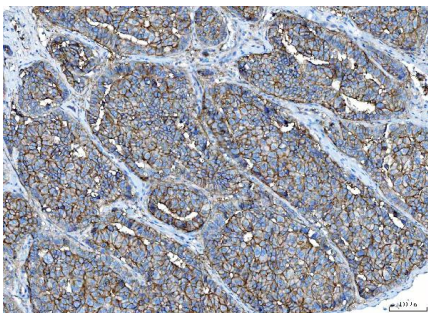


Figure 5. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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.

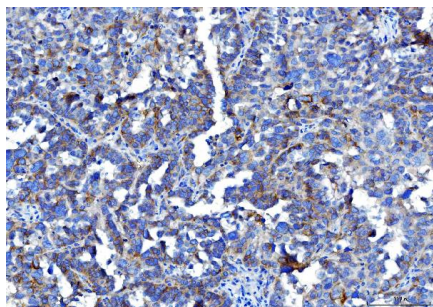


Figure 6. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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.

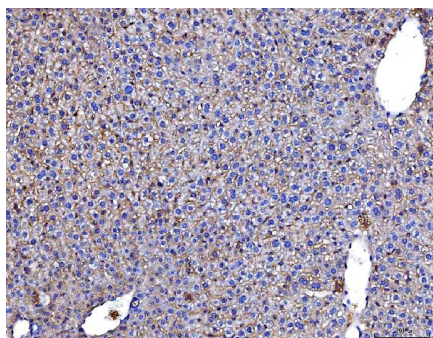


Figure 7. IHC analysis of Poliovirus Receptor/PVR using anti-Poliovirus Receptor/PVR antibody (M00664-1). Poliovirus Receptor/PVR was detected in a paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Poliovirus Receptor/PVR Antibody (M00664-1) 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'.