# Recombinant Protein Technical Manual

## Recombinant Human CD111/Nectin Protein (His Tag)(Active)

**RPES0710**

## Product Data:

**Product SKU:** RPES0710

**Size:** 50µg

**Species**: Human

**Expression host:** HEK293 Cells

**Uniprot:** NP_002846.3

## Protein Information:

| | |
|---|---|
| **Molecular Mass:** | 35.4 kDa |
| **AP Molecular Mass:** | 45-50 kDa |
| **Tag:** | C-His |
| **Bio-activity:** | Measured by its binding ability in a functional ELISA. Immobilized PVRL3 at 1 µg/ml (100 µl/well) can bind biotinylated recombinant human PVRL1 / Nectin with a linear range of 6.4-800 ng/ml. |
| **Purity:** | > 98 % as determined by reducing SDS-PAGE. |
| **Endotoxin:** | < 1.0 EU per µg as determined by the LAL method. |
| **Storage:** | Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping:** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation:** | Lyophilized from sterile PBS, pH 7.4 |
| **Reconstitution:** | Please refer to the printed manual for detailed information. |
| **Application:** | Functional ELISA |
| **Synonyms:** | Poliovirus Receptor-Related Protein 1; Herpes Virus Entry Mediator C; Herpesvirus Entry Mediator C; HveC; Herpesvirus Ig-Like Receptor; HIgR; Nectin; CD111; PVRL1; HVEC; PRR1;ED4;HIgR;HV1S;HVEC;nectin;OFC7;PRR;PVRR;PVRR1;SK2 |

## Immunogen Information:

**Sequence:** Met 1-Thr 334

## Background:

Poliovirus receptor-related 1 (herpesvirus entry mediator C; nectin; CD111), also known as PVRL1 is a cell adhesion molecule belonging to the immunoglobulin superfamily that can bind to virion glycoprotein D (gD) to mediate entry of herpes simplex viruses (HSV) and pseudorabies virus (PRV). CD111/Nectin/PVRL1 colocalizes with E-cadherin at adherens junctions in epithelial cells. The disruption of cell junctions can result in the redistribution of nectin. To determine whether disruption of junctions by calcium depletion influenced the susceptibility of epithelial cells to viral entry, Madin-Darby canine kidney cells expressing endogenous nectin or transfected human nectin were tested for the ability to bind soluble forms of viral gD and to be infected by HSV and PRV, before and after calcium depletion. It has been revealed that binding of HSV and PRV gD was localized to adherens junctions in cells maintained in normal medium but was distributed, along with nectin, over the entire cell surface after calcium depletion. Both the binding of gD and the fraction of cells that could be infected by HSV and PRV were enhanced by calcium depletion. Taken together, CD111/Nectin/PVRL1 confined to adherens junctions in epithelial cells is not very accessible to virus, whereas dissociation of cell junctions releases nectin to serve more efficiently as an entry recptor.