PVR Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	CD155/PVR, Cell Lysate
Full Product Name	Rat CD155/PVR HEK293 Overexpression Lysate
Product Gene Name	PVR cell lysate
Product Synonym Names	Rat CD155/PVR/NECL5 HEK293 Cell Lysate (WB positive control); poliovirus receptor
Sequence	Met1-Gly35 2
Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Molecular Weight	44,512 Da
Sequence Positions	330aa
3D Structure	ModBase 3D Structure for Q5U334
Species	Rat
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the extracellular domain of rat PVR (NP_058772.2) (Met 1-Gly 352) was expressed, fused with a polyhistidine tag at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Product Categories/Family for PVR cell lysate	Cancer Drug Targets
Applications Tested/Suitable for PVR cell lysate	Western Blot (WB)
Application Notes for PVR cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for PVR cell lysate	CD155, commonly known as PVR (poliovirus receptor) and Necl-5 (nectin-like molecule-5), is a type I transmembrane single-span glycoprotein, and belongs to the nectins and nectin-like (Necl) subfamily. CD155 was originally identified based on its ability to mediate the cell attachment and entry of poliovirus (PV), an etiologic agent of the central nervous system disease poliomyelitis. The normal cellular function is in the establishment of intercellular adherens junctions between epithelial cells. CD155 may assist in an efficient humoral immune response generated within the intestinal immune system. It has been demonstrated that CD155 can be recognized and bond by DNAM-1 and CD96 which promote the adhesion, migration and NK-cell killing, and thus efficiently prime cell-mediated tumor-specific immunity. This Rat CD155/PVR overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of CD155/PVR protein from the overexpression lysate was verified.

Product References and Citations for PVR cell lysate	Freistadt MS, et al. (2000) Hematopoietic cells from CD155-transgenic mice express CD155 and support poliovirus replication ex vivo. Microb Pathog. 29(4): 203-12.Sato T, et al. (2004) Involvement of heterophilic trans-interaction of Necl-5/Tage4/PVR/CD155 with nectin-3 in formation of nectin-and cadherin-based adherens junctions. Genes Cells. 9(9): 791-9.Kakunaga S, et al. (2004) Enhancement of serum-and platelet-derived growth factor-induced cell proliferation by Necl-5/Tage4/poliovirus receptor/CD155 through the Ras-Raf-MEK-ERK signaling. J Biol Chem. 279(35): 36419-25.Sato T, et al. (2005) Common signaling pathway is used by the trans-interaction of Necl-5/Tage4/PVR/CD155 and nectin, and of nectin and nectin during the formation of cell-cell adhesion. Cancer Sci. 96(9): 578-89.Minami Y, et al. (2007) Involvement of up-regulated Necl-5/Tage4/PVR/CD155 in the loss of contact inhibition in transformed NIH3T3 cells. Biochem Biophys Res Commun. 352(4): 856-60.
Other Notes	Small volumes of PVR cell lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PVR purchase	MBS8117322 is a cell lysate targeting PVR. Also known as Rat CD155/PVR HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PVR. It may not necessarily be applicable to this product.

NCBI GI #	148539963
NCBI GeneID	25066
NCBI Accession #	NP_058772.2
UniProt Primary Accession #	Q5U334
GenBank Nucleotide #	NM_017076.2
NCBI Official Full Name	poliovirus receptor
UniProt Protein Name	Poliovirus receptor
Protein Family	Poliovirus receptor
UniProt Gene Name	PVR
UniProt Entry Name	Q5U334_RAT
NCBI Summary for PVR	may act as a receptor to mediate entry of some viruses [RGD, Feb 2006]
UniProt Comments for PVR	PVR: 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 cytoxicity 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. Serves as a receptor for poliovirus attachment to target cells. May play a role in axonal transport of poliovirus, by targeting virion-PVR-containing endocytic vesicles to the microtubular network through interaction with DYNLT1. This interaction would drive the virus-containing vesicle to the axonal retrograde transport. Belongs to the nectin family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Immunoglobulin superfamily; Membrane protein, integral; Receptor, misc.; Motility/polarity/chemotaxis Cellular Component: focal adhesion; cell surface; plasma membrane; integral to membrane Molecular Function: viral receptor activity; cell adhesion molecule binding Biological Process: entry of virus into host cell; cell-cell adhesion; cell migration; positive regulation of natural killer cell mediated cytotoxicity directed against tumor cell target; susceptibility to natural killer cell mediated cytotoxicity; positive regulation of natural killer cell mediated cytotoxicity

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