

PRODUCT INFORMATION

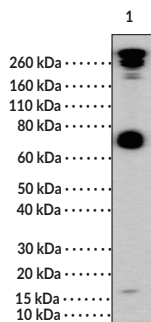
PVR/CD155 Rabbit Monoclonal Antibody (Clone RM514)

Item No. 42780

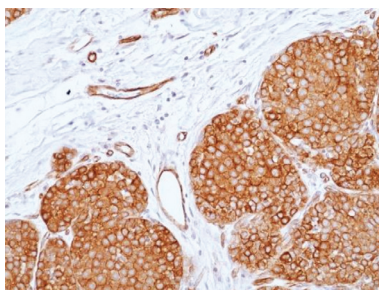
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified recombinant monoclonal antibody
Synonyms:	HVED, Necl-5, Nectin-like Protein 5, TAGE4
Immunogen:	Peptide corresponding to residues near the C-terminus of human PVR
Cross Reactivity:	(+) PVR
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM514
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:500 for IHC and 1:500-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

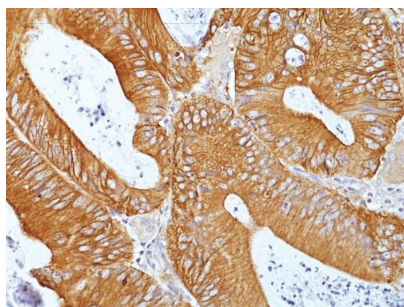
Images



WB of HeLa cell lysate using PVR/CD155 Rabbit Monoclonal Antibody (Clone RM514) at a dilution of 1:500.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue sections using Cayman's PVR/CD155 Rabbit Monoclonal Antibody (Clone RM514) at a dilution of 1:500.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue sections using Cayman's PVR/CD155 Rabbit Monoclonal Antibody (Clone RM514) at a dilution of 1:500.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Poliovirus receptor (PVR), also known as CD155, is a member of the nectin-like family of adhesion molecules encoded by the *Pvr* gene in mice that regulates cell migration and proliferation and immune cell activation.¹ It contains an N-terminal extracellular domain with three immunoglobulin-like (Ig-like) loops, C1-like and C2 domains that mediate dimerization, a transmembrane segment that acts as a ligand for receptors expressed by immune cells, and a C-terminal cytoplasmic tail that interacts with intracellular scaffold proteins.^{1,2} PVR is highly expressed by enterocytes and gastrointestinal lymphatic tissues.³ It localizes to the cell surface where it forms *cis*-homodimers that associate by *trans*-interactions with nectin-3 *cis*-homodimers expressed on adjacent cells, resulting in cell-cell adhesion.¹ PVR internalization by endocytosis disrupts PDGFR and integrin $\alpha\text{V}\beta 3$ signaling, inducing contact inhibition of cell movement and proliferation.^{1,2} PVR binds the co-stimulatory receptor CD226/DNAM-1, which is widely expressed by most immune cells, including T cells, B cells, natural killer (NK) cells, and monocytes, and the inhibitory receptors TIGIT and CD96, which are expressed by NK cells and T cells, inducing activation or inhibition of immune cells in a receptor-specific manner.¹ It is also the receptor for poliovirus attachment and entry into cells. In cancer cells, PVR expression is upregulated by FGF stimulation or expression of the oncogene Ras and downregulated by the unfolded protein response.⁴ *Pvr* knockdown reduces tumor growth and the number of lung metastases in B16/F10 or LWT1 mouse xenograft models.⁵ Cayman's PVR/CD155 Rabbit Monoclonal Antibody (Clone RM514) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

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3. Mueller, S. and Wimmer, E. Recruitment of nectin-3 to cell-cell junctions through trans-heterophilic interaction with CD155, a vitronectin and poliovirus receptor that localizes to $\alpha\text{v}\beta 3$ integrin-containing membrane microdomains. *J. Biol. Chem.* **278**(33), 31251-31260 (2004).
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