Human CD155/PVR Antibody

Monoclonal Mouse IgG_1 Clone # 300907

Catalog Number: MAB25301

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD155/PVR in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 300907
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD155/PVR Gly27-Asn343 Accession # AAH15542
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

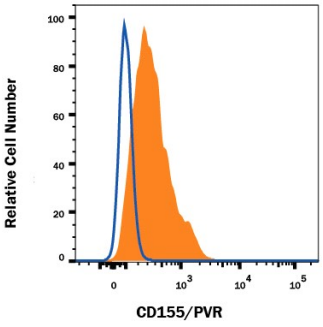
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human CD155/PVR (Catalog # 2530-CD)
Flow Cytometry	0.25 µg/10^6 cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

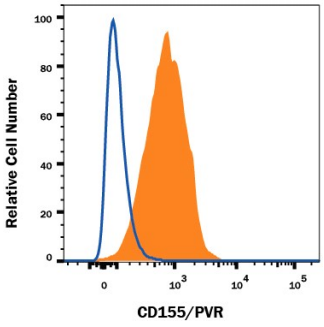
DATA

Flow Cytometry



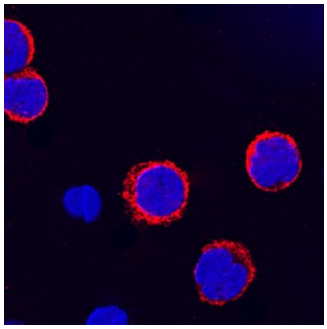
Detection of CD155/PVR in U937 Human Cell Line by Flow Cytometry. U937 human histiocytic lymphoma cell line was stained with Mouse Anti-Human CD155/PVR Monoclonal Antibody (Catalog # MAB25301, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

Flow Cytometry



Detection of CD155/PVR in HUVEC Human Cells by Flow Cytometry. HUVEC human umbilical vein endothelial cells were stained with Mouse Anti-Human CD155/PVR Monoclonal Antibody (Catalog # MAB25301, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for Staining Membrane-associated Proteins.

Immunocytochemistry



CD155/PVR in Human PBMCs. CD155/PVR was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human CD155/PVR Monoclonal Antibody (Catalog # MAB25301) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and plasma membrane. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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Catalog Number: MAB25301

BACKGROUND

CD155 [also known as PVR (poliovirus receptor) and Necl-5 (nectin-like molecule-5)] is a 70 kDa type I transmembrane (TM) glycoprotein that is a member of the nectin-like (Necl) family of nectin-related molecules (1). Like nectins, Necl molecules are Ig superfamily members that contain three Ig-like extracellular domains, a TM segment, and a cytoplasmic tail. Unlike nectins, Necl molecules cannot interact with cytoplasmic afadin (1). While Nectins serve as cell adhesion molecules, the actual functions of most Necls are yet-to-be determined. CD155/PVR was originally isolated based on its ability to mediate polio virus attachment to host cells (2, 3). The full-length (or CD155α isoform) is synthesized as a 417 amino acid (aa) precursor that contains a 20 aa signal sequence, a 323 aa extracellular region, a 24 aa TM segment and a 50 aa cytoplasmic tail. The extracellular region contains one N-terminal V-type and two C2-type Ig-like domains (2, 3). The V-type domain mediates polio virus binding (4). Three other isoforms exist, all of which retain the Ig-like domains. CD155δ is transmembrane with a shortened cytoplasmic tail of 25 aa. CD155β (352 aa) and CD155γ (344 aa) are 60-65 kDa soluble forms that show removal of the TM segment and surrounding amino acids (2, 5). The soluble forms will bind the polio virus (due to the presence of the V-type Ig domain) but afford no protection against polio infection because of low circulating levels (5). CD155 has been demonstrated to bind vitronectin, nectin-3, and DNAM-1 (6-8). DNAM-1 binding promotes monocyte migration and NK cell killing. CD155 is expressed in all normal tissues and is highly expressed in tumor cells of epithelial and neuronal origin.

References:

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