

## DESCRIPTION

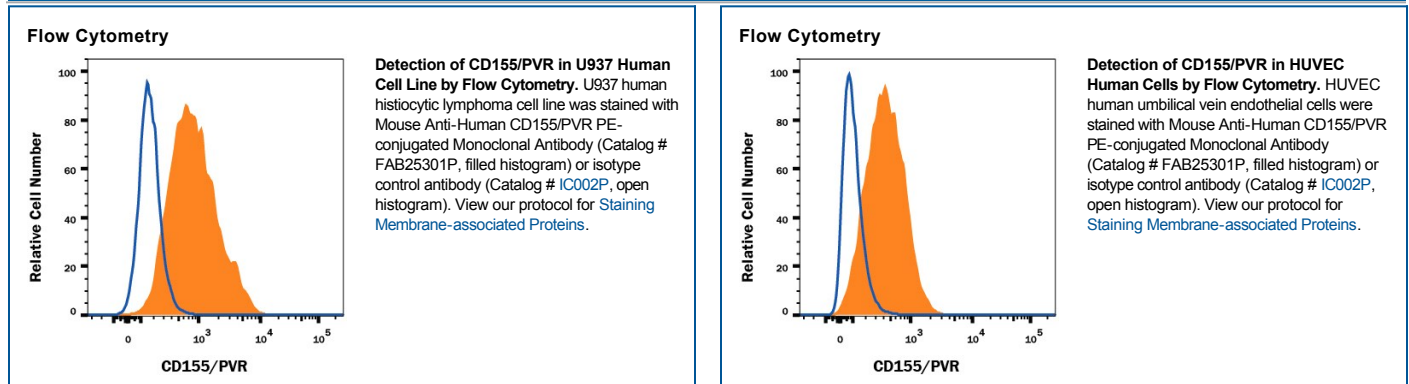
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CD155/PVR in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 300907
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human CD155/PVR Gly27-Asn343 Accession # AAH15542
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## 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
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### 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 CD155 $\alpha$  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. CD155 $\delta$  is transmembrane with a shortened cytoplasmic tail of 25 aa. CD155 $\beta$  (352 aa) and CD155 $\gamma$  (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:

1. Takai, Y. *et al.* (2003) *Cancer Sci.* **94**:655.
2. Mendelsohn, C.L. *et al.* (1989) *Cell* **56**:855.
3. Koike, H. *et al.* (1990) *EMBO J.* **9**:3217.
4. Koike, S. *et al.* (1991) *Proc. Natl. Acad. Sci. USA* **88**:4104.
5. Baur, B. *et al.* (2003) *Biochem. Biophys. Res. Commun.* **309**:175.
6. Mueller, S. and E. Wimmer (2003) *J. Biol. Chem.* **278**:31251.
7. Reymond, N. *et al.* (2004) *J. Exp. Med.* **199**:1331.
8. Lange, R. *et al.* (2001) *Virology* **285**:218.