Human CD155/PVR Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 1072806

Catalog Number: FAB11503G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD155/PVR in direct ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 1072806
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD155/PVR Gly27-Asn343 Accession # P15151
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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.*

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was CD155/PVR in U937 cell line.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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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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. Baury, 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.

PRODUCT SPECIFIC NOTICES

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