Mouse Nectin-2/CD112 PE-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 829038

Catalog Number: FAB3869P

100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nectin-2/CD112 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Nectin-2 or recombinant mouse CD155/PVR is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 829038
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Nectin-2/CD112 Gln32-Gly351 (predicted) Accession # P32507
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	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.

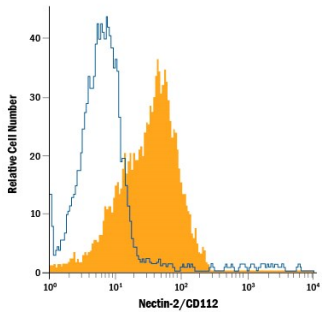
APPLICATIONS

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
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of Nectin-2/CD112 in C2C12 Mouse Cell Line by Flow Cytometry. C2C12 mouse myoblast cell line was stained with Rat Anti-Mouse Nectin-2/CD112 PE-conjugated Monoclonal Antibody (Catalog # FAB3869P, filled histogram) or isotype control antibody (Catalog # IC006P, open histogram). View our protocol for Staining Membrane-associated Proteins.

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.

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BACKGROUND

Nectins are a small family of Ca^{++}-independent immunoglobulin (Ig)-like Cell Adhesion Molecules (CAMs) that control cell adhesion, proliferation, and migration (1, 2, 3). The name Nectin derives from the Latin word *necto*, which means “to connect”. The Nectin family contains four members (Nectin-1 to -4), all of which show alternate splicing, a transmembrane (TM) region (except for Nectin-1γ which is secreted), and three extracellular Ig-domains. Nectins are highly homologous to the human receptor for poliovirus, and as such have been given the alternate name of poliovirus receptor-related proteins. They do not, however, appear to bind poliovirus (1). Mouse Nectin-2 is a 70 to 78 kDa type I TM glycoprotein that is found on a variety of cell types (4, 5). It has two splice forms (4, 6, 7). Nectin-2α/PRR2 is a 65 kDa short form and is synthesized as a 467 amino acid precursor. It contains a 31 aa signal sequence, a 315 aa extracellular domain (ECD), a 28 aa TM segment, and a 93 aa cytoplasmic region. The ECD contains one N-terminal V-type Ig domain and two 85-95 aa C2-type Ig-like domains (aa 153-337) (8). The V-domain is believed to mediate Nectin binding to its ligands (9). A long, 78 kDa, 530 aa isoform of mouse Nectin-2 (Nectin-2δ) also exists. It has the same signal sequence and extracellular domain as Nectin-2α (aa 1-338), but differs in the TM segment (21 aa in length) and cytoplasmic region (159 aa in length) (4, 6, 7). Mouse Nectin-2 ECD (aa 32-338) shares 72%, 77% and 95% aa identity with the ECD in human, canine and rat Nectin-2, respectively. Nectin-2 is known to bind pseudorabies virus, and herpes simplex virus-2 (HSV-2). It also binds select HSV-1 strains. It does not bind poliovirus (1, 10, 11). As a cell adhesion molecule, Nectin-2 will form cis-homodimers (same cell) and trans-homodimers (across cells). Nectin-2 will not cis-dimerize with other Nectins, but will trans-heterodimerize with Nectin-3 and CD266/DNAM-1 (1, 3, 11, 12, 13). Nectin-2 is found concentrated at cell-to-cell interfaces, and is presumed to contribute to tight and adherens junction formation (14). Through its interaction with NK and T cell expressed DNAM-1, it also promotes lymphocyte cytotoxicity and cytokine secretion against both tumors and dendritic cells (DC) expressing Nectin-2 (15, 16). In the case of DC, this may be a mechanism whereby the immune system eliminates DC that are inefficient at antigen presentation. Nectin-2 is expressed on epithelium, endothelial cells, Sertoli cells, monocytes, dendritic cells, granulosa cells, mast cells, eosinophils and fibroblasts.

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