Mouse FCRLA APC-conjugated Antibody

Antigen Affinity-purified Monoclonal Rat IgG_{2A} Clone # 865910

Catalog Number: IC7905A

100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse FCRLA in direct ELISAs.
Source	Monoclonal Rat IgG_{2A} Clone # 865910
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse FCRLA Lys221-Lys352 (Ile321Met) Accession # Q920A9
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 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.

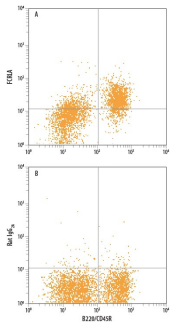
APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of FCRLA in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse B220/CD45R PE-conjugated Monoclonal Antibody (Catalog # FAB1217P) and either (A) Rat Anti-Mouse FCRLA APC-conjugated Antigen Affinity-purified Monoclonal Antibody (Catalog # IC7905A) or (B) Rat IgG_{2A} Allophycocyanin Isotype Control (Catalog # IC006A). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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

FCRLA (Fc Receptor-Like A; also known as FcRX and Fc receptor Homolog Expressed in B cells) is a 44 kDa intracellular member of the FcγRI class, FcR family, Immunoglobulin Superfamily of molecules. It is associated with B lineage cells, and has been identified in virtually all splenic B cells, peritoneal B1b and B2 B cells, and immature through mature bone marrow B cells. Not all cells show equal expression patterns. In the spleen, weak FCRLA expression occurs in naïve follicular and marginal zone B cells, and increases with activation state. FcRLA is suggested to act as an ER chaperone during antibody maturation, and is known to bind to IgM, IgA, and IgG prior to their secretion. Mouse FCRLA is synthesized as a 34 kDa, 322 amino acid (aa) precursor that contains a 30 aa signal sequence, two C2−type Ig−like domains (aa 80-169 and 182-26), and a C-terminal poly-Proline region (aa 289-294). Although there is no traditional ER retention signal, a viable substitute is assumed to exist at the N-terminus of the mature molecule. FCRLA is believed to exist naturally as a monomer; however, disulfide-linkage can occur during experimental manipulation. While four potential isoform variants are reported, it is unclear if any are actually expressed. One shows an Ala insertion after Ala28, a second shows an AlaIle substitution for aa 20-22, a third contains that previous AlaIle substitution coupled to a deletion of aa 90-115, while a fourth utilizes an alternative start site at Met62. Over aa 221-352, mouse FCRLA shares 68% and 55% aa sequence identity with rat and human FCRLA, respectively.

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