Human FCRLB/FCRY Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 454217

Catalog Number: IC4705N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FCRLB/FCRY in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 454217
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human FCRLB/FCRY Ala18-Ser426 Accession # Q6BAA4
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10^6 cells	Daudi human Burkitt's lymphoma cell line fixed with paraformaldehyde and permeabilized with methanol

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

FCRLB, also known as FCRL2, FCRY, and FREB2, is a 60 kDa protein with sequence homology to classical Fc receptors. There are at least six type 1 transmembrane FCRL proteins and two that lack transmembrane segments. Each family member contains between three and nine immunoglobulin-like domains. FCRL proteins are differentially expressed within the B cell lineage and can either promote or inhibit B cell proliferation and activation (1, 2). According to R&D Systems testing, FCRLB binds to purified human IgG with high affinity. Human FCRLB shares 82% and 85% amino acid sequence identity with mouse and rat FCRLB, respectively. It contains a putative signal peptide, three immunoglobulin-like domains, and a mucin-like stalk that is rich in Pro, Ser, and Thr residues (1-3). The stalk region also contains di-Leu motifs and an unpaired cysteine (1-3). Alternative splicing generates isoforms with deletions in the putative signal peptide and substitutions and/or truncations in the third Ig-like domain (3). When expressed in transfectants, FCRLB is not secreted but shows a diffuse intracellular localization (3, 4). FCRLB is expressed at a low level in placenta and in B lineage cells of the germinal center (3, 4). It is upregulated in B cells by BAFF and LPS (5). Among non-hematopoietic cells, FCRLB is expressed in fibroblasts, melanocytes, and melanoma (3, 5). It is preferentially expressed in nonproliferating cells and at the onset of apoptosis (4, 5).

References:

1. Davis, R.S. (2007) Annu. Rev. Immunol. **25**:525.
2. Maltais, L.J. *et al.* (2006) Nat. Immunol. **7**:431.
3. Chikaev, N.A. *et al.* (2005) Genomics **85**:264.
4. Wilson, T.J. and M. Colonna (2005) Genes Immun. **6**:341.
5. Masuda, K. *et al.* (2005) Gene **363**:32.

PRODUCT SPECIFIC NOTICES

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