

DESCRIPTION

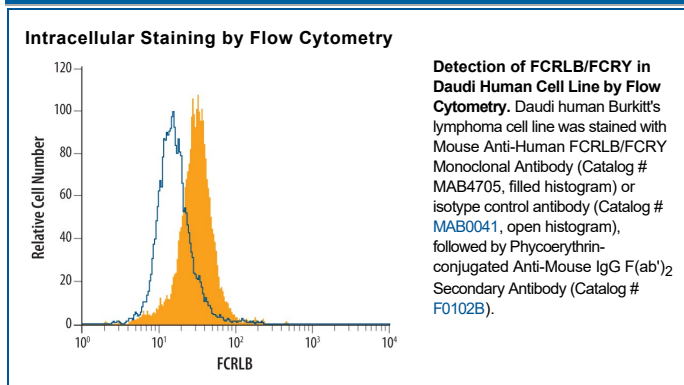
Species Reactivity	Human
Specificity	Detects human FCRLB/FCRY in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 454217
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human FCRLB/FCRY Ala18-Ser426 Accession # Q6BAA4
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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
Western Blot	1 µg/mL	Recombinant Human FCRLB/FCRY (Catalog # 4705-FC)
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.