

DESCRIPTION

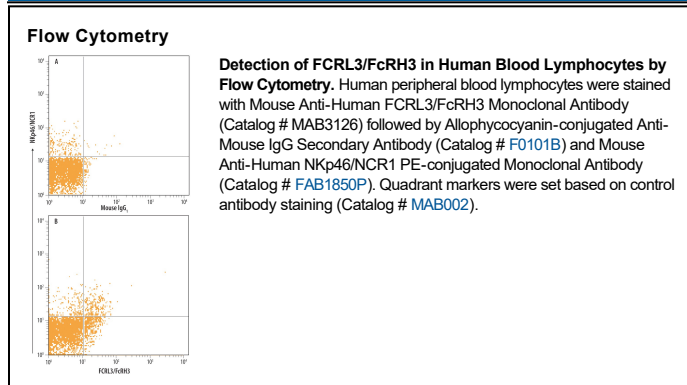
Species Reactivity	Human
Specificity	Detects human FCRL3/FcRH3 in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) FCRL2 and rhFCRL5 is observed, and no cross-reactivity with rhFCRL1 or recombinant mouse FCRL3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 546828
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human FCRL3/FcRH3 Arg14-Arg569 Accession # Q96P31
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
Flow Cytometry	2.5 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	Sterile PBS to a final concentration of 0.5 mg/mL.
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

FCRL3 (Fc Receptor-Like 3), also known as FcRH3, IRTA3, and SPAP2, is a 110 kDa molecule with sequence homology to classical Fc receptors. The type 1 transmembrane FCRL proteins contain from three to nine immunoglobulin-like domains. They are differentially expressed within the B cell lineage and can either promote or inhibit B cell proliferation and activation (1). Mature human FCRL3 consists of a 556 amino acid (aa) extracellular domain (ECD) with six Ig-like domains, a 21 aa transmembrane segment, and a 140 aa cytoplasmic domain with four immunotyrosine inhibitory motifs (ITIMs) (2-4). Within the ECD, human and mouse FCRL3 share 35% aa sequence identity. Alternate splicing generates several additional isoforms with deletions or substitutions in both the extracellular and intracellular regions. These include potentially secreted forms that are truncated following the second Ig-like domain (4). FCRL3 is expressed in secondary lymphoid organs on the surface of mature naïve and memory B cells, NK cells, and B cell lines derived from chronic lymphocytic leukemias (2, 3, 5). It is upregulated on B cells following LPS or anti-CD40 stimulation (6). A polymorphism in the FCRL3 promoter induces enhanced transcription and is associated with the development of autoimmune disorders in a Japanese population (6, 7). Tyrosine phosphorylation within the ITIMs of FCRL3 enables its association with SHP-1 (4).

References:

1. Davis, R.S. (2007) *Annu. Rev. Immunol.* **25**:525.
2. Miller, I. *et al.* (2002) *Blood*, **99**:2662.
3. Davis, R.S. *et al.* (2001) *Proc. Natl. Acad. Sci.* **98**:9772.
4. Xu, M.-J. *et al.* (2002) *Biochem. Biophys. Res. Commun.* **293**:1037.
5. Polson, A.G. *et al.* (2006) *Int. Immunol.* **18**:1363.
6. Kochi, Y. *et al.* (2005) *Nat. Genet.* **37**:478.
7. Chistiakov, D.A. and A.P. Chistiakov (2007) *Hum. Immunol.* **68**:375.