

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human FCRL1/FcRH1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) FCRL2, 3, 4, or 5 is observed.                                                                                                              |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 282420                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human FCRL1/FcRH1<br>Ala17-His304 (predicted)<br>Accession # Q96LA6                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### 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

Fc Receptor-Like 1 (FCRL1), also known as FcRH1, and IRTA5, is an approximately 50 kDa protein 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, 2). According to R&D Systems testing, FCRL1 binds to purified human IgG. Mature human FCRL1 consists of a 291 amino acid (aa) extracellular domain (ECD) with three Ig-like domains, a 21 aa transmembrane segment, and a 101 aa cytoplasmic domain with two immunotyrosine activation motifs (ITIMs) (3, 4). A charged glutamic acid within the transmembrane segment may mediate association with other signaling proteins. Alternative splicing may generate an isoform that lacks the transmembrane segment and an isoform that largely consists of the first two Ig-like domains (5). Mouse FCRL1 contains only two Ig-like domains, but it shares 62% aa sequence identity with homologous regions of the human FCRL1 ECD. FCRL1 is expressed on pre-B cells and naive B cells (6, 7). It is down-regulated upon B cell activation but up-regulated on memory B cells (6, 8). FCRL1 is expressed on many B cell lymphoma and leukemia tumor cells with the exception of B cell acute lymphoblastic leukemia (9-11). Antibody crosslinking of FCRL1 triggers its tyrosine phosphorylation and augments B cell proliferation induced by the B cell receptor (6).

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.