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# FCRL3 Rabbit pAb

Catalog # AP97351

## Product Information

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| **Application** | IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q96P31 |
| **Other Accession** | Q96P31 |
| **Predicted** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 80856 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human FCRL3 |
| **Epitope Specificity** | 301-400/734 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Contains 6 Ig-like C2-type (immunoglobulin-like) domains. |
| **Post-translational modifications** | Phosphorylated on cytoplasmic tyrosines; required for interaction with protein tyrosine phosphatases and protein tyrosine kinases. |
| **DISEASE** | Genetic variation in FCRL3 may be a cause of susceptibility to rheumatoid arthritis (RA) [MIM:180300]. It is a systemic inflammatory disease with autoimmune features and a complex genetic component. It primarily affects the joints and is characterized by inflammatory changes in the synovial membranes and articular structures, widespread fibrinoid degeneration of the collagen fibers in mesenchymal tissues, and by atrophy and rarefaction of bony structures. Genetic variation in FCRL3 may influence susceptibility to Graves disease, an autoimmune disorder associated with overactivity of the thyroid gland and hyperthyroidism. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | This gene encodes a member of the immunoglobulin receptor superfamily and is one of several Fc receptor-like glycoproteins clustered on the long arm of chromosome 1. The encoded protein contains immunoreceptor-tyrosine activation motifs and immunoreceptor-tyrosine inhibitory motifs in its cytoplasmic domain and may play a role in regulation of the immune system. Mutations in this gene have been associated with rheumatoid arthritis, autoimmune thyroid disease, and systemic lupus erythematosus. [provided by RefSeq, Jul 2008] |

## Additional Information

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| **Gene ID** | 115352 |
| **Other Names** | CD307c; FCRH3; IFGP3; IRTA3; MAIA; SPAP2; FCRL3_HUMAN; FCRL3; FcR-like protein 3; Fc receptor homolog 3 (FcRH3); IFGP family protein 3 (hIFGP3); Immune receptor translocation-associated protein 3; SH2 domain-containing |

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| | phosphatase anchor protein 2; Fc receptor like 3; Fc receptor-like 3 |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | FCRL3 ( HGNC:18506) |
| **Function** | Promotes TLR9-induced B-cell proliferation, activation and survival but inhibits antibody production and suppresses plasma cell differentiation. Enhances activation of NF-kappa-B and MAPK signaling pathways in TLR9 stimulated B-cells (PubMed:23857366). Has inhibitory potentional on B-cell receptor (BCR)-mediated signaling, possibly through association with SH2 domain-containing phosphatases. Inhibits cell tyrosine phosphorylation, calcium mobilization and activation- induced cell death induced through BCR signaling (PubMed:19843936). Regulatory T-cells expressing FCRL3 exhibit a memory phenotype, are relatively nonresponsive to antigenic stimulation in presence of IL2 and have reduced capacity to suppress the proliferation of effector T- cells (PubMed:19494275, PubMed:20190142). Acts as a human-specific epitope on the cell surface of oocytes (oolemma) and plays a role during sperm-egg adhesion and fusion (PubMed:36070373). Interacts with the IZUMO1-IZUMO1R/JUNO sperm-egg complex and replaces IZUMO1R/JUNO as IZUMO1 receptor during fertilization, thereby permitting species- specific gamete fusion (PubMed:36070373). |
| **Cellular Location** | Cell membrane; Single-pass type I membrane protein. Cell projection, microvillus membrane. Note=Localized along the oolemma microvilli of unfertilized oocytes |
| **Tissue Location** | Primarily expressed in secondary lymphoid tissues by mature subsets of B-cells. Low expression on transitional B cells which increases to higher surface expression on mature and memory B- cells with innate-like features (at protein level) (PubMed:23857366) Expressed a low levels in naive and germinal center B-cells but also expressed in NK cells (at protein level) (PubMed:20190142). Expressed in unfertilized oocytes (at protein level) (PubMed:36070373). Expressed in a population of thymically derived naturally occurring regulatory T- cells that exhibits a memory phenotype, specialized in suppressing immune response to self-antigens (PubMed:20190142). Detected in spleen, lymph node, peripheral blood lymphocytes, thymus, bone marrow, kidney, salivary gland, adrenal gland and uterus. |

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