

FCRL3 Rabbit pAb

Catalog # AP97351

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q96P31
Other Accession	Q96P31
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

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 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=1:500 0-10000
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

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 potential 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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