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CD5L Rabbit pAb

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Catalog # AP58030

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O43866
Reactivity	Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38088
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CD5L
Epitope Specificity	221-347/347
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CD5L is a member of the scavenger receptor cysteine-rich domain superfamily (SRCR-SF) initially identified as an inducible cell surface ligand of CD5. It was shown that CD5L functions in the thymus as the inducer of resistance to apoptosis within CD4+/CD8+ thymocytes and as the supporter of the viability of these cells before thymic selection. CD5L was also shown to support macrophage survival and enhance their phagocytic function. More recent experiments using recombinant CD5L significantly inhibited apoptosis of NKT and T cells obtained from C. parvum-stimulated livers in vitro, suggesting that CD5L functions to induce resistance to apoptosis in these cells and supports host defense against inflammation during infection. Expressed in spleen, lymph node, thymus, bone marrow, and fetal liver, but not in non-lymphoid tissues.

Additional Information

Gene ID	922
Other Names	CD5 antigen-like, Apoptosis inhibitor expressed by macrophages, hAIM, CT-2 {ECO:0000303|Ref.2}, IgM-associated peptide, SP-alpha, CD5L, API6
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	CD5L
Synonyms	API6
Function	Secreted protein that acts as a key regulator of lipid synthesis: mainly expressed by macrophages in lymphoid and inflamed tissues and regulates mechanisms in inflammatory responses, such as infection or atherosclerosis. Able to inhibit lipid droplet size in adipocytes. Following incorporation into mature adipocytes via CD36- mediated endocytosis, associates with cytosolic FASN, inhibiting fatty acid synthase activity and leading to lipolysis, the degradation of triacylglycerols into glycerol and free fatty acids (FFA). CD5L-induced lipolysis occurs with progression of obesity: participates in obesity- associated inflammation following recruitment of inflammatory macrophages into adipose tissues, a cause of insulin resistance and obesity-related metabolic disease. Regulation of intracellular lipids mediated by CD5L has a direct effect on transcription regulation mediated by nuclear receptors ROR-gamma (RORC). Acts as a key regulator of metabolic switch in T-helper Th17 cells. Regulates the expression of pro-inflammatory genes in Th17 cells by altering the lipid content and limiting synthesis of cholesterol ligand of RORC, the master transcription factor of Th17-cell differentiation. CD5L is mainly present in non-pathogenic Th17 cells, where it decreases the content of polyunsaturated fatty acyls (PUFA), affecting two metabolic proteins MSMO1 and CYP51A1, which synthesize ligands of RORC, limiting RORC activity and expression of pro-inflammatory genes. Participates in obesity-associated autoimmunity via its association with IgM, interfering with the binding of IgM to Fcalpha/mu receptor and enhancing the development of long-lived plasma cells that produce high- affinity IgG autoantibodies (By similarity). Also acts as an inhibitor of apoptosis in macrophages: promotes macrophage survival from the apoptotic effects of oxidized lipids in case of atherosclerosis (PubMed:24295828). Involved in early response to microbial infection against various pathogens by acting as a pattern recognition receptor and by promoting autophagy (PubMed:16030018, PubMed:24223991, PubMed:24583716, PubMed:25713983). Promotes recovery from acute kidney injury (AKI) by accumulating on necrotic cell debris within the kidney proximal tubules following AKI and interacting with HAVCR1 expressed on the surface of injured kidney tubular epithelial cells (PubMed:26726878). This enhances HAVCR1-mediated phagocytosis of intraluminal necrotic debris and contributes to kidney tissue repair (PubMed:26726878). Also enhances necrotic debris uptake by kidney macrophages in a HAVCR1-independent manner (By similarity).
Cellular Location	Secreted. Cytoplasm {ECO:0000250|UniProtKB:Q9QWK4}. Note=Secreted by macrophages and circulates in the blood (PubMed:24223991, PubMed:24804991). Transported into the cytoplasm via CD36-mediated endocytosis (By similarity) Following acute kidney injury, dissociates from IgM in the blood and is excreted into urine, leading to its accumulation at intraluminal debris in the kidney proximal tubules (PubMed:26726878) {ECO:0000250|UniProtKB:Q9QWK4, ECO:0000269|PubMed:24223991, ECO:0000269|PubMed:24804991, ECO:0000269|PubMed:26726878}
Tissue Location	Expressed in spleen, lymph node, thymus, bone marrow, and fetal liver, but not in non-lymphoid tissues

Background

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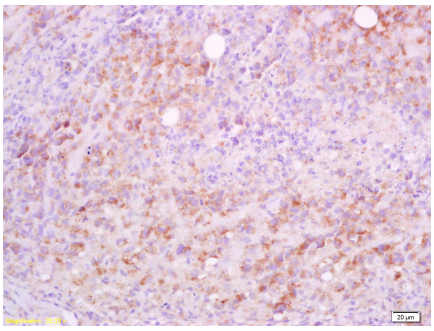
Images



Tissue/cell: mouse lymphoma tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-CD5L/Api6 Polyclonal Antibody, Unconjugated(AP58030) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.