

Recombinant Mouse Cd5l Protein, His-tagged

Cat. No. Cd5l-7164M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Cd5l protein with a His tag was expressed in insect cells.
Species	Mouse
Source	Insect Cells
ProteinLength	22-352
Description	<p>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</p>

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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 Fc α / μ receptor and enhancing the development of long-lived plasma cells that produce high-affinity IgG autoantibodies. Also acts as an inhibitor of apoptosis in macrophages: promotes macrophage survival from the apoptotic effects of oxidized lipids in case of atherosclerosis. Involved in early response to microbial infection against various pathogens by acting as a pattern recognition receptor and by promoting autophagy.

Form Liquid

Molecular Mass 37.6 kDa

AA Sequence

ESPTKVQLVGGahrcegrvevehngqwgTVCDDGWDRRDVAVVCRELNCGAVIQ
 TPRGASYQPPASEQRVLIQGVDCNGTEDTLAQCELNYDVFDCSHEEDAGAQCENP
 DSDLLFIPEDVRLVDGPGHCQGRVEVLHQSQWSTVCKAGWNLQVSKVVCRLGCG
 GRALLTYGSCNKSTQGGKPIWMGKMSCSGQEANLRSCLLSRLENNCTHGEDTWM
 ECEDPFELKLVGGDTPCSGRLEVLHKGWSVCCDDNWGEKEDQVVCKQLGCGKS
 LHPSKTRKIYGPAGRIWLDDVNCSGKEQSLEFCRHRLWGYHDCTHKEDVEVICT
 DFDVLEHHHHHHH

Endotoxin < 1.0 EU/ μ g of protein (determined by LAL method)

Purity > 95 % by SDS-PAGE

Stability Shelf life: one year from despatch.

Storage Store undiluted at 2-8 centigrade for one week or (in aliquots) at -20 to -80 centigrade for longer. Avoid repeated freezing and thawing.

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Concentration 0.25 mg/mL (determined by absorbance at 280nm)

Storage Buffer Phosphate Buffered Saline (pH 7.4) containing 10 % glycerol.

GENE INFORMATION

Gene Name Cd5l CD5 antigen-like [*Mus musculus* (house mouse)]

Official Symbol Cd5l

Synonyms Cd5l; CD5 antigen-like; A; Sp; 1/6; AIM; CT2; Pdp; AAC-; Api6; mAIM; AAC-11; AI047839; Sp-alpha; CD5 antigen-like; AIM/Spalpha; CT-2; Pdp 1/6; apoptosis inhibitor 6; apoptosis inhibitor expressed by macrophages

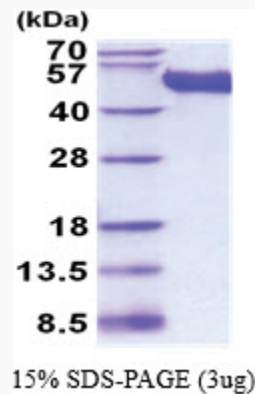
Gene ID 11801

mRNA Refseq NM_009690

Protein Refseq NP_033820

UniProt ID Q9QWK4

SDS-PAGE



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