

**CD5L Blocking Peptide (N-term)**  
**Synthetic peptide**  
**Catalog # BP19894a****Specification**

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**CD5L Blocking Peptide (N-term) - Product Information**

Primary Accession [O43866](#)  
Other Accession [NP\\_005885.1](#)

**CD5L Blocking Peptide (N-term) - Additional Information**

**Gene ID** 922

**Other Names**

CD5 antigen-like, CT-2, IgM-associated peptide, SP-alpha, CD5L, API6

**Target/Specificity**

The synthetic peptide sequence is selected from aa 79-93 of HUMAN CD5L

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CD5L Blocking Peptide (N-term) - 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 Fc $\alpha$ /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:<a href="http://www.uniprot.org/citations/24295828" target="\_blank">24295828</a>). Involved in early response to microbial infection against various pathogens by acting as a pattern recognition receptor and by promoting autophagy (PubMed:<a href="http://www.uniprot.org/citations/16030018" target="\_blank">16030018</a>, PubMed:<a href="http://www.uniprot.org/citations/24223991" target="\_blank">24223991</a>, PubMed:<a href="http://www.uniprot.org/citations/24583716" target="\_blank">24583716</a>, PubMed:<a href="http://www.uniprot.org/citations/25713983" target="\_blank">25713983</a>).

#### **Cellular Location**

Secreted. Cytoplasm {ECO:0000250|UniProtKB:Q9QWK4} Note=Secreted by macrophages and circulates in the blood (PubMed:24223991, PubMed:24804991). Transported in the cytoplasm via CD36-mediated endocytosis (By similarity) {ECO:0000250|UniProtKB:Q9QWK4, ECO:0000269|PubMed:24223991, ECO:0000269|PubMed:24804991}

#### **Tissue Location**

Expressed in spleen, lymph node, thymus, bone marrow, and fetal liver, but not in non-lymphoid tissues

### **CD5L Blocking Peptide (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **CD5L Blocking Peptide (N-term) - Images**

### **CD5L Blocking Peptide (N-term) - Background**

CD5L may play a role in the regulation of the immune system. Seems to play a role as an inhibitor of apoptosis.

### **CD5L Blocking Peptide (N-term) - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :  
Davila, S., et al. Genes Immun. 11(3):232-238(2010)  
Chapuis, J., et al. Mol. Psychiatry 14(11):1004-1016(2009)  
Qu, P., et al. J. Immunol. 182(3):1648-1659(2009)  
Kim, W.K., et al. Exp. Mol. Med. 40(6):677-685(2008)