

Product datasheet for **MC200567**

Cd5l (NM_009690) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cd5l (NM_009690) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cd5l
Synonyms:	1/6; AAC-11; AI047839; Api6; CT2; mAIM; Pdp; Sp-alpha
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC006799 sequence for NM_009690
 CCAAATACCACTGCTGAGGCCTACAGCCTGTCTACCACTCCATTGTCAGCTGCCTGGGCCATGGCTCC
 ATTGTTCAACTTGATGCTGGCCATCTTGAGCATTTTTGTTGGATCGTGTTCAGAGTCTCCAACCAAA
 GTGCAGCTAGTGGGAGGTGCCACCGCTGTGAAGGGCAGTGGAGGTGGAACACAATGGCCAGTGGGGGA
 CTGTGTGTGATGATGGCTGGGACCGCGTGATGTGGCTGTGGTGTGCCGAGAGCTCAATTGTGGAGCAGT
 CATCCAAACCCCGCTGGCGCATCATATCAGCCACCAGCATCAGAGCAAAGAGTTCTTATTCAAGGGGTT
 GACTGCAACGGAAACGGAAGACACGTTGGCTCAATGTGAGCTAAATTACGATGTTTTGACTGCTCACATG
 AAGAAGATGCTGGGGCACAGTGTGAGAACCAGACAGTGACCTCCTCTTATTCCAGAGGATGTGGCTCT
 AGTAGATGGCCCGGGGACTGCCAGGGTCGAGTGGAGGTGCTCCACCACTGCCAGTCCCAGTGGAGCACTGTGTG
 AAAGCAGGCTGGAACCTTACAGGTCTCAAAGGTGGTGTGCAGGCAGCTCGGGTGTGGGCGGGCATTACTGA
 CCTACGGAAGCTGCAACAAGAGTACTCAGGGCAAAGGACCCATCTGGATGGGCAAGATGTCGTGTTCTGG
 ACAAGAAGCAAACCTTCGGTCTTGCTTTTGTGAGTCGTTTGGAGAACAACGTACCCATGGCGAGGACACA
 TGGATGGAATGTGAAGATCCTTTTGTGAGCTGAAGCTGGTGGGAGGAGACACCCCTGCTCTGGGAGTTGG
 AGGTGCTGCACAAGGGTTCCTGGGGCTCCGTCTGTGATGACAACGGGGAGAAAAGGAGGACCAAGTGGT
 CTGCAAGCAACTGGGTTGTGGGAAGTCCCTCCATCCATCCCCAAAACCCGAAAATCTATGGGCCTGGG
 GCAGGCCGCATCTGGCTGGATGACGTCAACTGCTCAGGGAAGGAACAGTCTCTGGAGTTCTGCCGGCACA
 GGTTGTGGGGGTACCACGACTGTACCCACAAGGAAGATGTGGAGGTGATCTGCACAGACTTTGATGTGTG
 AATTGGATCCCTGCTTGTTCAGTGGGCCCTCATTCTCCAGTGGTTACATCAGGCTGTGGGCTTTAGACA
 CCTTCCCTCAGCCTCGAAAGAGTCTGAACATTGTGTTCTATCTTGATCTCAAGGCTACACGCCCCCAT
 AATCACCTCAAGACATGAGCTGCTGAGCTCCCTTGTGACCTTTCCAGCTGCCCTAGGCTCACTGTTTAC
 TCCTTGGTGAAGCCCCACCTTACTGTCTCTCCAGCCTGCCTGCAACTCTGGGCCTGCCAGAGT
 GAGCAGCTGTACAGGCCAGGAGTAAGACACGGCCTGTCTGTGAACACCACTGAGGATGTGACAACATGAG
 GAACACTTGAGAGGGAATGTGGGTAGACAGATTCTTGGAGGCGGGAGAGATAATAACAATGTTTAAATGC
 TTTTAAACTTTGTAACAAGTGAAGTGATCATAATAAACAACCTCACTACTCTGCTTCTCAGAGAAA
 GCAGCAGGGTGGTTTCTGCAGCCCTCAAATGTTACCTGTTGAGTTCTAGATGTCTACCCAAAACCTCCA
 TGTTTAAAGTTTGTGATGCTAATGCAACAGTATTCTGAGGTGGGCCTTAGGGATCTAACTGCATCATGTG
 GTTTGATCCCTCAGTCTTATGAGTGGATTAATCACTGGTGAATCCCCTGGGAGATGGTAGAGACTTGAG
 GAGTTGGGACCTAGTTAGAAGAAGAAGGTGTTGGAGTGTGCCTTTGGAAGGGGCTGTTTTGTCCACAGC
 TTGACCACCTCCCTGTGATAGTGGTTCGCTTGCATATCTCTCTACTGTGTGGAATTATGCTACAATAA
 ACATGAGTGCTCAAGTAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_009690

Insert Size: 1059 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC006799](#), [AAH06799](#)

RefSeq Size: 1995 bp

RefSeq ORF: 1059 bp

Locus ID: 11801

UniProt ID: [Q9QWK4](#)

Cytogenetics: 3 F1

Gene Summary: 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 (PubMed:26048980). Able to inhibit lipid droplet size in adipocytes (PubMed:20519120, PubMed:22579686). 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) (PubMed:20519120). 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 (PubMed:21730133). Regulation of intracellular lipids mediated by CD5L has a direct effect on transcription regulation mediated by nuclear receptors ROR-gamma (RORC) (PubMed:22579686, PubMed:26607793). Acts as a key regulator of metabolic switch in T-helper Th17 cells (PubMed:26607794, PubMed:26607793). 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 (PubMed:26607793). 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 (PubMed:26607793). 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 (PubMed:23562157). Also acts as an inhibitor of apoptosis in macrophages: promotes macrophage survival from the apoptotic effects of oxidized lipids in case of atherosclerosis (PubMed:9892623, PubMed:16054063). Involved in early response to microbial infection against various pathogens by acting as a pattern recognition receptor and by promoting autophagy (By similarity).[UniProtKB/Swiss-Prot Function]