Product datasheet for TP505357

Cd5l (NM_009690) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse CD5 antigen-like (Cd5l), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR205357 protein sequence Red=Cloning site Green=Tags(s) MAPLFNLMLAILSIFVGSCFSESPTKVQLVGGAHRCEGRVEVEHNGQWGTVCDDGWDRRDVAVVCRELNC GAVIQTPRGASYQPPASEQRVLIQGVDCNGTEDTLAQCELNYDVFDCSHEEDAGAQCENPDSDLLFIPED VRLVDGPGHCQGRVEVLHQSQWSTVCKAGWNLQVSKVVCRQLGCGRALLTYGSCNKSTQGKGPIWMGKMS CSGQEANLRSCLLSRLENNCTHGEDTWMECEDPFELKLVGGDTPCSGRLEVLHKGSWGSVCDDNWGEKED QVVCKQLGCGKSLHPSPKTRKIYGPGAGRIWLDDVNCSGKEQSLEFCRHRLWGYHDCTHKEDVEVICTDF DV TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	38.8 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_033820
Locus ID:	11801
UniProt ID:	Q9QWK4

View online »

RefSeq Size:	2037
Cytogenetics:	3 F1
RefSeq ORF:	1059
Synonyms:	1/6; AAC-11; AI047839; Api6; CT2; mAIM; Pdp; Sp-alpha
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 Fcalpha/mu 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]