

**PRODUCT INFORMATION**

|   |   |
|---|---|
| <b>Clone ID</b>                         | DMC441  |
| <b>Target</b>                           | CD5L  |
| <b>Synonyms</b>                         | AIM; API6; CT-2; hAIM; PRO229; SP-ALPHA;<br>Spalpha   |
| <b>Host Species</b>                     | Rabbit  |
| <b>Description</b>                      | Anti-CD5L antibody(DMC441); IgG1 Chimeric mAb   |
| <b>Delivery</b>                         | In Stock  |
| <b>Uniprot ID</b>                       | O43866  |
| <b>IgG type</b>                         | Rabbit/Human Fc chimeric IgG1   |
| <b>Clonality</b>                        | Monoclonal  |
| <b>Reactivity</b>                       | Human   |
| <b>Applications</b>                     | Flow Cyt  |
| <b>Recommended Dilutions</b>            | Flow Cyt 1:100  |
| <b>Purification</b>                     | Purified from cell culture supernatant by affinity chromatography   |
| <b>Formulation &amp; Reconstitution</b> | Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.  |
| <b>Storage &amp; Shipping</b>           | Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature. |

CONFIDENTIAL



**Background**

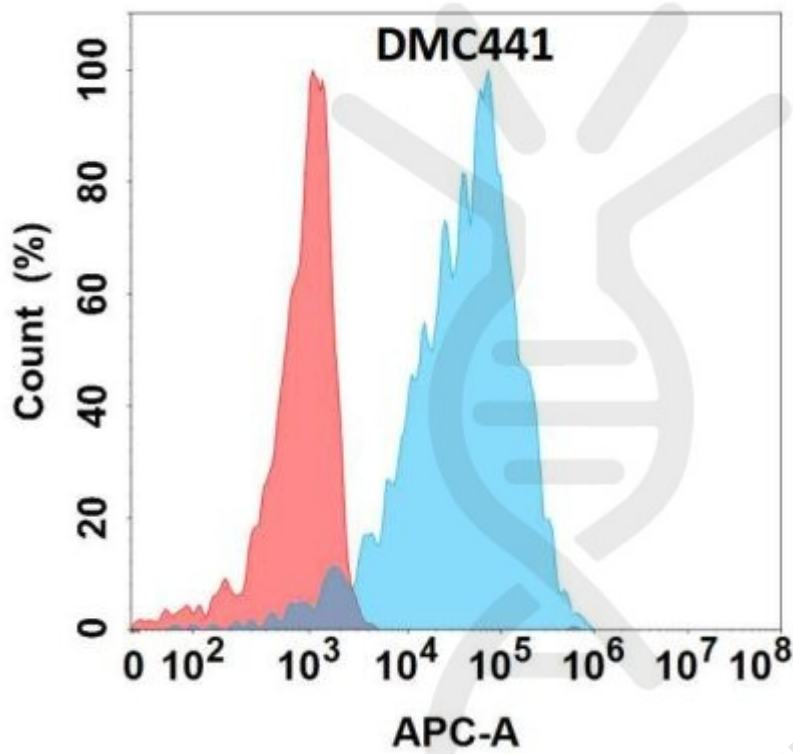
Secreted protein that acts as a key regulator of lipid synthesis: mainly expressed by macrophages in lymphoid and inflamed tissues and regulates mechanisms in inflammatory responses; such as infection or atherosclerosis. Able to inhibit lipid droplet size in adipocytes. Following incorporation into mature 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: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).

**Usage**

Research use only

CONFIDENTIAL





**Figure 1.** Flow cytometry analysis with Anti-CD5L (DMC441) on Expi293 cells transfected with human CD5L (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).

