

Human CellExp™ CD40 Ligand / TNFSF5, Fc tag, Human Recombinant

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| CATALOG NO: | P1175-10 | 10 µg |
| | P1175-50 | 50 µg |
| ALTERNATE NAMES: | CD40LG, CD154, CD40L, HIGM1, IGM, IMD3, T-BAM, TNFSF5, TRAP, gp39 | |
| SOURCE: | HEK 293 cells (Met 113 - Leu 261) | |
| PURITY: | > 95% by SDS – PAGE | |
| MOL. WEIGHT: | This protein carries a human IgG1 Fc tag at the N-terminus. The protein has a calculated MW of 43.3 kDa. As a result of glycosylation, the protein migrates as 45-50 kDa under reducing (R) condition, and 100-115 kDa under non-reducing (NR) condition (SDS-PAGE). | |
| ENDOTOXIN LEVEL: | < 1.0 EU per 1µg of protein (determined by LAL method) | |
| FORM: | Lyophilized | |
| FORMULATION: | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Generally Mannitol or Trehalose is added as a protectant before lyophilization. | |
| STORAGE CONDITIONS: | Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles. | |
| RECONSTITUTION: | Centrifuge the vial prior to opening. Reconstitute in sterile deionized water to a concentration of 50 µg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Carrier protein (0.1% (W/V) HSA or BSA) is recommended for further dilution and long term storage. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. | |
| DESCRIPTION: | CD40 ligand is also known as CD40L, CD154, TNFSF5 and T-cell antigen Gp39, is a single-pass type I I membrane protein which belongs to the TNF superfamily of molecules. CD40 ligand is expressed predominantly on activated CD4+ T lymphocytes, and also found in other types of cells, including platelets, mast cells, macrophages, basophils, NK cells, B lymphocytes, as well as non-haematopoietic cells (smooth muscle cells, endothelial cells, and epithelial cells). Although all monomeric, dimeric and trimeric forms of soluble CD40 ligand can bind to CD40, the trimeric form of soluble CD40 ligand has the most potent biological activity through oligomerization of cell surface CD40, a common feature of TNF receptor family members. CD40 ligand binds to CD40 on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. In general, CD40 ligand plays the role of a costimulatory molecule and induces activation in APC in | |

association with T cell receptor stimulation by MHC molecules on the APC. In total CD40 ligand has three binding partners: CD40, $\alpha 5\beta 1$ integrin and $\alpha 11\beta 3$. CD40 ligand regulates B cell function by engaging CD40 on the B cell surface. A defect in this gene results in an inability to undergo immunoglobulin class switch and is associated with hyper IgM syndrome.

SPECIFIC ACTIVITY: Immobilized Human CD40 Ligand, His Tag at 5 µg/mL (100 µl/well) can bind Human CD40, Fc Tag with a linear range of 0.156-5 µg/ml.

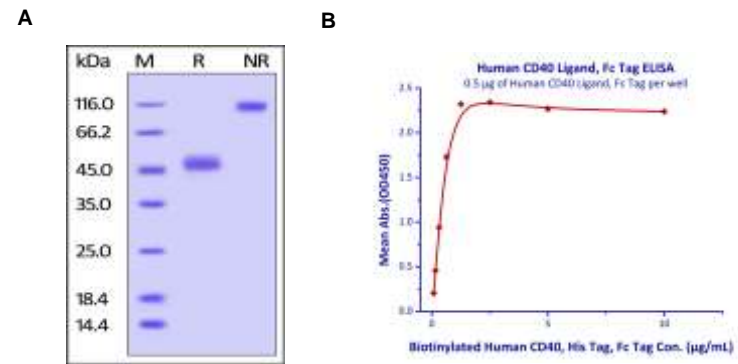


Fig. A. Human CD40 Ligand, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions.

Fig. B. Immobilized Human CD40 Ligand, Fc Tag at 5 µg/mL (100 µl/well) can bind Biotinylated Human CD40, His Tag, Fc Tag with a linear range of 0.078-0.625 µg/ml.

RELATED PRODUCT:

- Human CellExp™ TNFRSF10B /TRAILR2, human recombinant (**Cat. No. 7448-10**)
- Human CellExp™ CD155, human recombinant (**Cat. No. 7462-10, -50**)
- Human CellExp™ CD160/BY55, human recombinant (**Cat. No. 7386-10, -50**)
- Human CellExp™ CD58 /LFA-3, human recombinant (**Cat. No. 7427-10, -50**)
- Human CellExp™ CD62E/E-Selectin, human recombinant (**Cat. No. 7434-20, -100**)
- Human CellExp™ CD71 / TFRC / TFR, human recombinant (**Cat. No. 7279-10, -50**)
- Human CellExp™ CD273, human recombinant (**Cat. No. 7369-10, -50**)
- Human CellExp™ CD36, human recombinant (**Cat. No. 7371-10, -50**)
- Human CellExp™ CD87, human recombinant (**Cat. No. 7372-20, -100**)

FOR RESEARCH USE ONLY! Not to be used on humans.