

Recombinant Mouse Cd40lg protein, Fc-tagged

Cat. No. Cd40lg-43M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Cd40lg (Gly115-Leu260) protein was fused to human IgG1 Fc tag at N-terminus and expressed in human 293 cells (HEK293).
Species	Mouse
Source	HEK293
ProteinLength	Gly115-Leu260
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

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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.

Predicted N Terminal Gly115

Form Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.

Molecular Mass The protein has a calculated MW of 42.9 kDa. As a result of glycosylation, the protein migrates as 52 kDa under reducing (R) condition, and 90-116 kDa under non-reducing (NR) condition (SDS-PAGE).

Endotoxin Less than 1.0 EU per µg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage

For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20 to -70 centigrade for 12 months in lyophilized state;
- 70 centigrade for 3 months under sterile conditions after reconstitution.

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

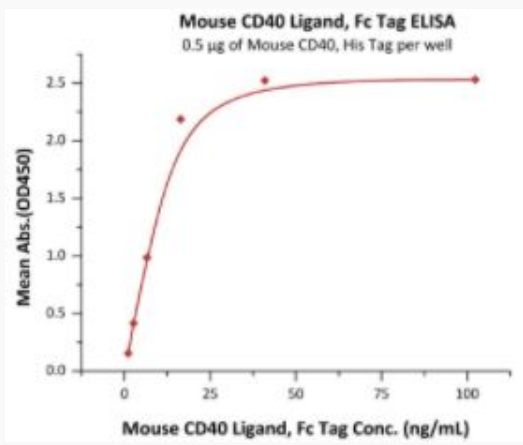
GENE INFORMATION

Gene Name Cd40lg

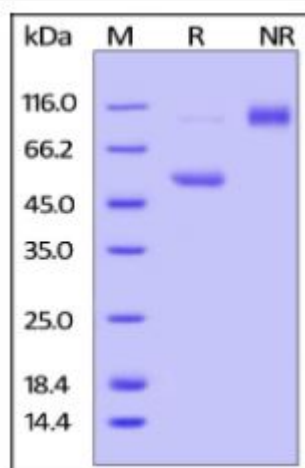
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Official Symbol	Cd40lg
Synonyms	CD40LG; CD40 ligand; T-cell antigen Gp39; TNF-related activation protein; tumor necrosis factor ligand superfamily member 5; IGM; IMD3; Ly62; TRAP; gp39; CD154; Cd40l; HIGM1; Ly-62; T-BAM; CD40-L; Tnfsf5
Gene ID	21947
mRNA Refseq	NM_011616
Protein Refseq	NP_035746
UniProt ID	P27548
Bioactivity-ELISA of Cd40lg-43M	 Immobilized Mouse CD40, His Tag at 5 µg/mL (100 µL/well) can bind Mouse CD40 Ligand, Fc Tag with a linear range of 1-16 ng/mL (QC tested).

**SDS-PAGE of
Cd40lg-43M**



Mouse CD40 Ligand, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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