

Recombinant Human/Rhesus macaque CD40LG protein, Mouse IgG2a Fc-tagged, low endotoxin

Cat. No. CD40LG-324H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human/Rhesus macaque CD40LG protein (Met113-Leu261)(low endotoxin), fused to Mouse IgG2a Fc tag at N-terminus, was expressed in human 293 cells (HEK293). In the region Met113-Leu261, the AA sequence of Human and Rhesus macaque CD40LG are homologous.
Species	Human/Rhesus macaque
Source	HEK293
ProteinLength	149
Description	<p>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.</p> <p>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</p>

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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.

Form

Lyophilized from 0.22 um filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.

Molecular Mass

The protein has a calculated MW of 43.1 kDa. The protein migrates as 45-50 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per ug 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 centigrade 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

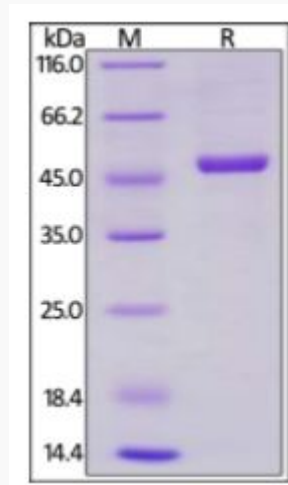
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Official Symbol	CD40LG
Synonyms	IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L
Gene ID	959
mRNA Refseq	NM_000074.3
Protein Refseq	NP_000065.1
MIM	300386
UniProt ID	CD40LG

**SDS-PAGE of
CD40LG-324H**



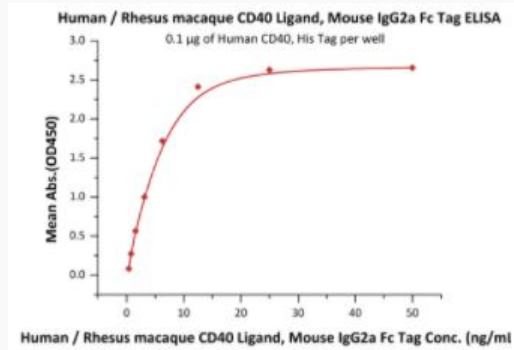
Human/Rhesus macaque CD40 Ligand, Mouse IgG2a Fc Tag, low endotoxin on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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Bioactivity-ELISA of CD40LG-324H



Immobilized Human CD40, His Tag at 1 µg/mL (100 µL/well) can bind Human/Rhesus macaque CD40 Ligand, Mouse IgG2a Fc Tag with a linear range of 0.4-6 ng/mL (QC tested).

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