Active Recombinant Human/Rhesus macaque CD40LG Protein, Mouse IgG2a Fc Tagged, Low endotoxin

Cat. No. CD40LG-11240H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human/Rhesus macaque CD40 Ligand, Mouse IgG2a Fc Tag, low endotoxin is expressed from human 293 cells (HEK293). It contains AA Met 113-Leu 261 (Accession # P29965-1). In the region Met 113-Leu 261, the AA sequence of Human and Rhesus macaque CD40 Ligand are homologus. This protein carries a mouse IgG2a Fc tag at the N-terminus. Predicted N-terminus: Glu
Species	Human/Cynomolgus
Source	HEK293
ProteinLength	113-261 aa
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

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	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, α5β1 integrin and αIIbβ3. 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 μm filtered solution in PBS, pH7.4 with trehalose as protectant.
Bio-activity	Immobilized Human CD40 Protein, His Tag at 1 μg/mL (100 μL/well) can bind Human/Rhesus macaque CD40 Ligand Protein, Mouse IgG2a Fc Tag with a linear range of 0.1-4 ng/mL.
Molecular Mass	The protein has a calculated MW of 43.1 kDa. The protein migrates as 45-50 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 0.01 EU/μg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE.
Storage	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. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

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GENE INFORMATION

Gene Name	CD40LG CD40 ligand [Homo sapiens (human)]
Official Symbol	CD40LG
Synonyms	CD40LG; CD40 ligand; IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L; CD40 ligand; CD40 antigen ligand; CD40-L; T-B cell-activating molecule; T-cell antigen Gp39; TNF-related activation protein; tumor necrosis factor (ligand) superfamily member 5
Gene ID	959
mRNA Refseq	NM_000074
Protein Refseq	NP_000065
MIM	300386
UniProt ID	P29965

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