Recombinant Human CD40LG Protein, hFc-tagged, Alexa Fluor 488 conjugated

Cat. No. CD40LG-279HAF488 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alexa Fluor 488 conjugated recombinant human CD40LG (Met113-Leu261) protein was fused to human IgG1 Fc tag at N-terminus and expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	Met113-Leu261
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

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	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
Molecular Mass	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).
N-terminal Sequence Analysis	Met 113
Endotoxin	< 1.0 EU/ μg by the LAL method.
Purity	> 95 % as determined by SDS-PAGE
Characteristic	Disulfide-linked homodimer Labeled with Alexa Fluor 488 via amines Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
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.

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Storage Buffer	Lyophilized from 0.22 μm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
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.
Conjugation	Alexa Fluor 488

GENE INFORMATION

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

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