

Active Recombinant Human CD40 Ligand

Cat. No. CD40LG-4737H Lot. No. (See product label)

SPECIFICATION

Product Overview	CD40L or CD154 is a membrane glycoprotein and differentiation antigen expressed on the surface of T-cells. The CD40 ligand stimulates B-cell proliferation and secretion of all immunoglobulin isotypes in the presence of cytokines. Recombinant Human CD40L produced in E.Coli is a non-glycosylated, Polypeptide chain containing 149 amino acids and having a molecular mass of 16308 Dalton.
Species	Human
Source	E.coli
Description	CD154, also called CD40 ligand or CD40L, is a protein that is primarily expressed on activated T cells and is a member of the TNF superfamily of molecules. In general, CD40L 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.
Form	CD40L is lyophilized from 10mM Sodium Phosphate pH=7.5.
Purity	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	H-CD40L is fully biologically active when compared to standard. The ED50 as determined using T-47D cells is <0.04 ug/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml which can be further diluted into other aqueous solutions.
Purity Greater than 98% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	MQKGDQNPQI AAHVISEASS KTTSVLQWAE KGYTMSNNL VTLENGKQLT VKRQGLYYIY AQVTFCSNRE ASSQAPFIAS LWLKSPGRFE RILLRAANTH SSAKPCGQQS IHLGGVFELQ PGASVFNVT DPSQVSHGTG FTSFGLLKL
Storage	Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

GENE INFORMATION

Gene Name	CD40LG CD40 ligand [Homo sapiens]
Official Symbol	CD40LG
Synonyms	CD40LG; CD40 ligand; IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L; CD40 ligand; T-cell antigen Gp39; T-B cell-activating molecule; tumor necrosis factor (ligand) superfamily member 5; TNF-related activation protein;

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CD40 antigen ligand; CD40-L

Gene ID [959](#)

mRNA Refseq [NM_000074](#)

Protein Refseq [NP_000065](#)

MIM [300386](#)

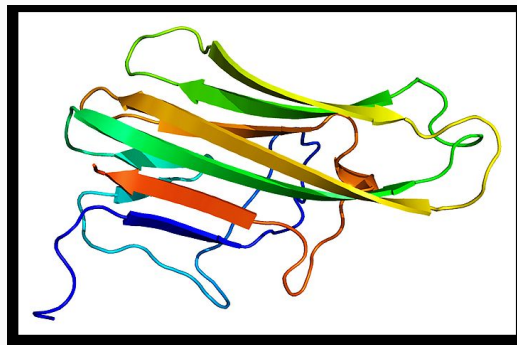
UniProt ID [P29965](#)

Chromosome Location Xq26

Pathway Allograft rejection; Asthma; Autoimmune thyroid disease; Cell adhesion molecules (CAMs); Cytokine-cytokine receptor interaction; Intestinal immune network for IgA production; Systemic lupus erythematosus; T cell receptor signaling pathway; Viral myocarditis; Signaling in Immune system

Function CD40 receptor binding; cytokine activity; tumor necrosis factor receptor binding

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