

Active Recombinant Human CD40LG (108-261aa)

Cat. No. CD40LG-019E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD40LG (Glu108Leu261, with an Nterminal Met) was expressed in E. coli and produced using nonanimal reagents in an animalfree laboratory.
Species	Human
Source	E.coli
Description	CD40 ligand, CD40L (also known as CD154, TRAP or gp39), is a 261 amino acid type II transmembrane glycoprotein belonging to the TNF family, CD40L is expressed predominantly on activated CD4+ T lymphocytes, and also found in other types of cells, like NK cells, mast cells, basophils and eosinophils. The receptor of CD40L is CD40, a type I transmembrane glycoprotein belonging to the TNF receptor family. CD40 is expressed on B lymphocytes, monocytes, dendritic cells and thymic epithelium. Although all monomeric, dimeric and trimeric forms of soluble CD40L can bind to CD40, the trimeric form of soluble CD40L has the most potent biological activity through oligomerization of cell surface CD40, a common feature of TNF receptor family members. CD40L mediates a range of activities on B cells including induction of activationassociated surface antigen, entry into cell cycle, isotype switching and Ig secretion and memory generation.
Nterminal Sequence Analysis	Met
Molecular Mass	16.9 kDa (monomer)

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SDSPAGE	18 kDa, reducing condition
Activity	Measured in a cell proliferation assay using B cellenriched peripheral blood mononuclear cells (PBMC) in the presence of IL4. The ED50 for this effect is typically 1-3 µg/mL in the presence of 20 ng/mL of rhIL-4.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDSPAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in NaH ₂ PO ₄ , NaCl and EDTA. See Certificate of Analysis for details.
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 1. 12 months from date of receipt, 20 to 70 °C as supplied. 2. 3 months, 2 to 8 °C under sterile conditions after reconstitution.
Unitprot ID	P29965

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;

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TNFSF5; hCD40L; CD40-L; OTTHUMP00000024130; OTTHUMP00000024131; CD40 antigen ligand; T-cell antigen Gp39; T-B cell-activating molecule; TNF-related activation protein; tumor necrosis factor (ligand) superfamily member 5

Gene ID [959](#)

mRNA Refseq [NM_000074](#)

Protein Refseq [NP_000065](#)

MIM [300386](#)

Chromosome Location Xq26

Pathway Adaptive Immunity Signaling; Allograft rejection; CD40/CD40L signaling; Calcineurin-regulated NFAT-dependent transcription in lymphocytes; Cell adhesion molecules (CAMs); Inflammatory Response Pathway; Systemic lupus erythematosus; T cell receptor signaling pathway

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

PDB rendering based on 1aly.

