

Recombinant Mouse CD40 Ligand

Cat. No. Cd40lg-98M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse sCD40 produced in E.Coli is a non-glycosylated, Polypeptide chain containing 149 amino acids and having a molecular mass of 16409 Dalton. The sCD40 is purified by proprietary chromatographic techniques.
Species	Mouse
Source	E.coli
ProteinLength	113-260 aa
Description	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. CD40 ligand has been shown to induce cytokine production and tumoricidal activity in peripheral blood monocytes. It also costimulates proliferation of activated T-cells and this is accompanied by the production of IFN-gamma, TNF-alpha, and IL2.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Arg-Gly-Asp.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	Lyophilized from a sterile concentrated solution (1 mg/ml) with 10mM Sodium Phosphate pH=7.5.
Solubility	It is recommended to reconstitute the lyophilized sCD40 in sterile 18 MΩ-cm H ₂ O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The ED ₅₀ as determined by its ability to induce MIP-1 alpha & TNF-alpha from mouse splenocytes was found to be 0.1 g/ml.
Protein Content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 1.1 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of sCD40 as a Reference Standard.
Storage	Lyophilized sCD40 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CD154 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	Cd40lg CD40 ligand [<i>Mus musculus</i>]
Synonyms	Cd40lg; CD40 ligand; IGM; IMD3; Ly62; TRAP; gp39; CD154; Cd40l; HIGM1; Ly-62; T-BAM; Tnfsf5; OTTMUSP00000019349; tumor necrosis factor (ligand) superfamily, member 5
Gene ID	21947

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mRNA Refseq	NM_011616
Protein Refseq	NP_035746
UniProt ID	P27548
Chromosome Location	X A5; X 18.0 cM
Pathway	Allograft rejection; Asthma; Autoimmune thyroid disease; Cell adhesion molecules (CAMs); Cytokine-cytokine receptor interaction; Primary immunodeficiency; Systemic lupus erythematosus; T cell receptor signaling pathway
Function	cytokine activity; tumor necrosis factor receptor binding
PDB rendering based on 1aly.	