

CD40 Ligand Trimer Protein, Human, Recombinant (hFc)

General Information

Synonyms:	CD40 Ligand;CD40LIGM;IGM;TNFSF5;TRAP;HIGM1;CD154;TNFSF5IMD3;CD40L;T-BAM;CD40LG
Protein Construction:	Met113-Leu261
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P29965
Molecular Weight:	74.9 kDa (predicted). Due to glycosylation, the protein migrates to 75-80 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	<p>1. Immobilized Human CD40, His Tag at 1 µg/ml (100 µl/Well) on the plate. Dose response curve for Human CD40 Ligand (Trimer) , hFc Tag with the EC50 of 9.0 ng/ml determined by ELISA (QC Test).
</p> <p>2. Serial dilutions of Anti-CD40 Antibody were added into Biotinylated Human CD40, His Tag : Human CD40 Ligand (Trimer) , hFc Tag binding reactions. The half maximal inhibitory concentration (IC50) is 2.0 µg/ml.</p>
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.
Stability & Storage:	<p>It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.</p> <p><small>Actual storage temperature shall be subject to the COA.</small></p>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

CD40 ligand or CD40L, also called CD154, is a protein that is primarily expressed on activated T cells and is a member of the TNF superfamily of molecules. It binds to CD40 (protein) on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. In total CD40L has three binding partners: CD40, $\alpha 5\beta 1$ integrin and $\alpha 1\beta 3$. CD154 acts as a costimulatory molecule and is particularly important on a subset of T cells called T follicular helper cells.

Reference

Bjorck P, Filbert E, Zhang Y, et al. The CD40 agonistic monoclonal antibody APX005M has potent immune stimulatory capabilities[J]. Journal for Immunotherapy of Cancer, 2015, 3(S2):P198.

Pound, J. D. Minimal cross-linking and epitope requirements for CD40-dependent suppression of apoptosis contrast with those for promotion of the cell cycle and homotypic adhesions in human B cells[J]. International Immunology, 1999, 11(1):11-20.

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