

# Human CD40 Ligand/TNFSF5 Trimer Protein

Cat. No. CDL-HM240

## Description

<b>Source</b>	Recombinant Human CD40 Ligand/TNFSF5 Trimer Protein is expressed from HEK293 with monomeric hFc tag at the N-Terminus. It contains Met113-Leu261.
<b>Accession</b>	P29965
<b>Molecular Weight</b>	The protein has a predicted MW of 74.9 kDa. Due to glycosylation, the protein migrates to 75-80 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

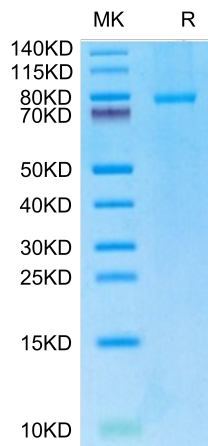
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## 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  $\alpha 11\beta 3$ . CD154 acts as a costimulatory molecule and is particularly important on a subset of T cells called T follicular helper cells.

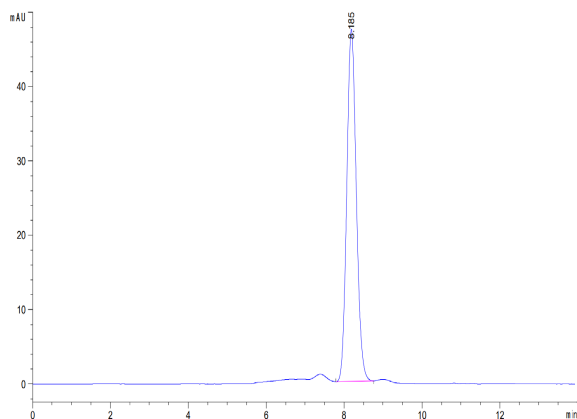
## Assay Data

### Bis-Tris PAGE



Human CD40 Ligand (Trimer) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



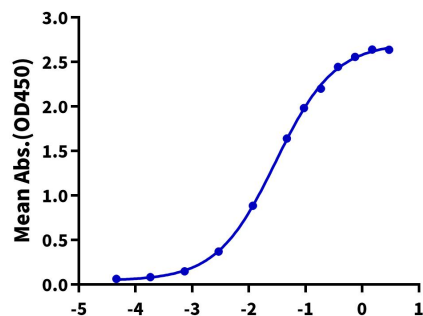
The purity of Human CD40 Ligand (Trimer) is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

**Human CD40 Ligand (Trimer), hFc Tag ELISA**

0.2µg Human CD40, His Tag Per Well



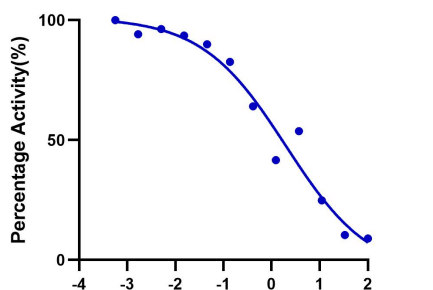
Immobilized Human CD40, His Tag at 2µg/ml (100µl/Well) on the plate. Dose response curve for Human CD40 Ligand (Trimer), hFc Tag with the EC50 of 29.8ng/ml determined by ELISA (QC Test).

Log Human CD40 Ligand (Trimer), hFc Tag Conc.(µg/ml)

Blocking Data

**Inhibition of Human CD40 Ligand (Trimer) and CD40 Binding**

0.5µg Human CD40 Ligand (Trimer), hFc Tag Per Well



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 2.0ug/ml.

Log Anti-CD40 Antibody, hFc Tag Conc.(µg/ml)