

Human CD40 Ligand/TNFSF5 Trimer Protein

Cat. No. CDL-HM140

Description

Source	Recombinant Human CD40 Ligand/TNFSF5 Trimer Protein is expressed from HEK293 with His tag and Flag tag at the N-Terminus. It contains Met113-Leu261.
Accession	P29965
Molecular Weight	The protein has a predicted MW of 52.4 kDa, Due to glycosylation, the protein migrates to 55 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	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.
Storage	-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 $\alpha \text{IIb}\beta 3$. CD154 acts as a costimulatory molecule and is particularly important on a subset of T cells called T follicular helper cells.

Assay Data

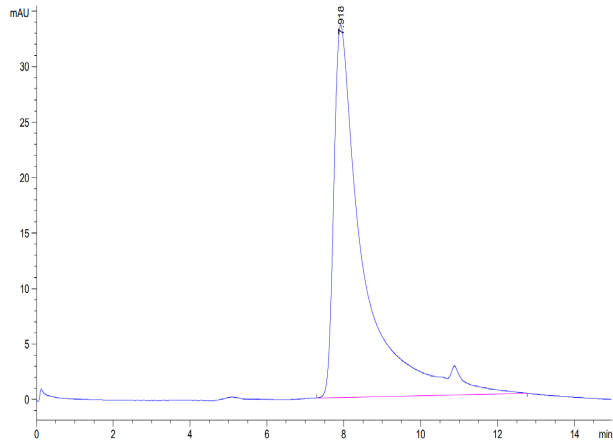
Bis-Tris PAGE



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

SEC-HPLC

Assay Data



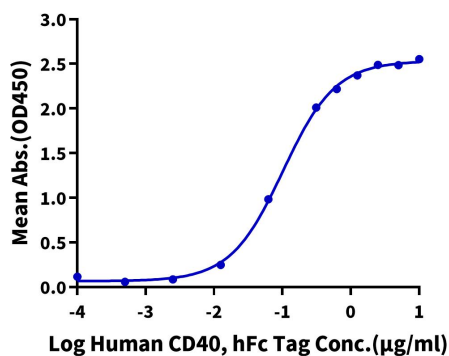
The purity of Human CD40 Ligand Trimer is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

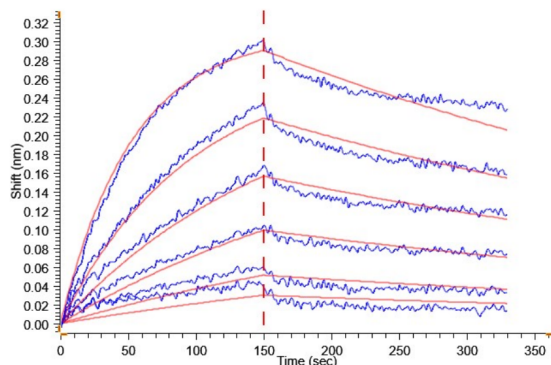
Human CD40 Ligand Trimer, His Tag ELISA

0.5µg Human CD40 Ligand Trimer, His Tag Per Well



Immobilized Human CD40 Ligand Trimer, His Tag at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human CD40, hFc Tag with the EC50 of 101.8ng/ml determined by ELISA.

BLI Data



Loaded Human CD40, hFc Tag on ProA-Biosensor can bind Human CD40 Ligand (Trimer), His-Flag Tag with an affinity constant of 0.23 µM as determined in BLI assay (Gator® Prime).