

Recombinant Human CD40L/CD154 protein (His Tag)

Catalog Number: Eg0054

Basic Information

Species:
Human**Purity:**
>95 %, SDS-PAGE**Tag:**
His Tag**EC50:**
17-68 ng/mL

Technical Specifications

Purity:
>95 %, SDS-PAGE**Endotoxin Level:**
<0.1 EU/ μ g protein, LAL method**Source:**
HEK293-derived Human CD40L protein Met113-Leu261 (Accession# P29965) with a His tag at the N-terminus.**GeneID:**
959**Accession:**
P29965**Predicted Molecular Mass:**
17 kDa**SDS-PAGE:**
17-19 kDa, reducing (R) conditions**Formulation:**
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Immobilized Human CD40L (His tag) at 2 μ g/mL (100 μ L/well) can bind Human CD40 (Myc tag, His tag) with a linear range of 17-68 ng/mL.

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

The CD40 ligand (CD40L), also known as TRAP or CD154, is a member of the TNF superfamily of ligands. CD40L is primarily expressed on activated CD4⁺ T cells and on a small proportion of CD8⁺ T cells and platelets. It binds to CD40 on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. It has been suggested that CD40/CD40L interactions regulate oxidative stress and affect various signaling pathways in both the immunological and the cardiovascular systems. The CD40/CD40L system is also involved in tumorigenesis. Its expression is tightly regulated, and abnormal levels of CD40L are associated with the pathogenesis of atheromatous plaque destabilization and thrombotic events. Multiple mutations in CD40LG gene have been identified that are associated with hyper-IgM immunodeficiency syndrome type 1.

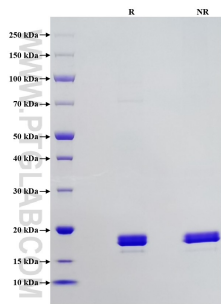
References

1. Elgueta R. et al. (2009). Immunol Rev. 229(1):152-172.
2. Rizvi M. et al. (2008). Trends Mol Med. 14(12):530-538.
3. Michel N.A. et al. (2017). Front Cardiovasc Med. 4:40.

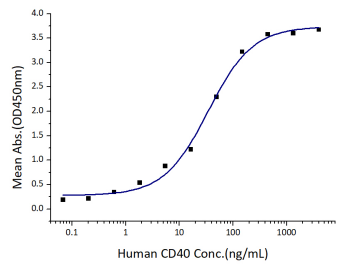
Synonyms

CD154, CD40L/CD154, CD40L; CD154, CD40LG, CD 154

Selected Validation Data



Purity of Recombinant Human CD40L was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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