# Recombinant Mouse CD40LG/TNFSF5 Protein (His Tag)

**Catalog Number: PKSM041352**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

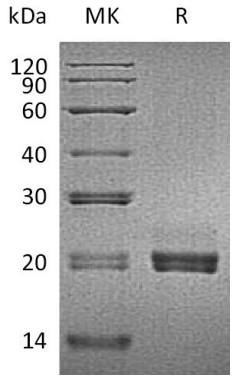
## Description

| | |
|---|---|
| **Species** | Mouse |
| **Mol_Mass** | 18.8 kDa |
| **Accession** | P27548 |
| **Bio-activity** | Not validated for activity |

## Properties

| | |
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 20mM PB, 200mM NaCl, 0.1mM EDTA, pH 7.0.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




## Background

CD40 Ligand, also known as TNFSF5, CD154, is a type II transmembrane glycoprotein member of the TNF superfamily. Mature mouse CD40 Ligand consists of a 22 amino acid (aa) cytoplasmic domain, a transmembrane segment, and a 214 aa extracellular region. CD40 Ligand is expressed as a homotrimer on platelets and activated T cells and B cells. It is up-regulated following stimulation of basophils, eosinophils, fibroblasts, mast cells, monocytes, natural killer cells, vascular endothelial cells, and smooth muscle cells. CD40 Ligand binds and activates CD40, which is expressed on the surface of B cells, dendritic cells,macrophages, monocytes, platelets, endothelial cells, and epithelial cells. Monomeric, dimeric, and trimeric forms of soluble CD40 Ligand bind to oligomeric CD40 on cell membranes. CD40 ligation by CD40 Ligand promotes B cell activation and T cell-dependent humoral responses. CD40 Ligand dysregulation on T cells and antigen presenting cells contributes to the immune deficiency associated with HIV infection and AIDS. It is also implicated in the pathology of multiple cardiovascular diseases including atherosclerosis, atherothrombosis, and restenosis.

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