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# Recombinant Human CD40L/TNFSF5 Protein (His Tag)

Catalog Number: PKSH031976

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

#### Description

Species Human

Source E.coli-derived Human CD40L/TNFSF5 protein Glu 108-Leu 261, with an C-terminal His

 Calculated MW
 17.7 kDa

 Observed MW
 18 kDa

 Accession
 NP\_000065.1

**Bio-activity** 1. Immobilized human CD40 at 2 μg/ml (100 μl/well) can bind biotinylated human

CD40L with a linear range of 15.6-500 ng/ml. 2. Immobilized human CD40 / Fc at 2  $\mu$ g/ml (100  $\mu$ l/well) can bind biotinylated human CD40L with a linear range of 7.8-125

ng/ml.

## **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** Please contact us for more information.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80

°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, pH 7.4, 10% glycerol

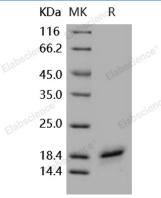
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 95 % as determined by reducing SDS-PAGE.

# Background

## For Research Use Only

#### Elabscience Bionovation Inc.



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The cluster of differentiation (CD) system is commonly used as cell markers in immunophynotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD154, also known as CD40 ligand or CD40L, is a member of the TNF superfamily. While CD154 was originally found on T cell surface, its expression has since been found on a wide variety of cells, including platelets, mast cells, macrophages and NK cells. CD154's ability is achieved through binding to the CD40 on antigen- presenting cells (APC). In the macrophage cells, the primary signal for activation is IFN-γ from Th1 type CD4 T cells. The secondary signal is CD40L on the T cell, which interacting with the CD40 molecules, helping increase the level of activation.

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