

# Human CD40 / TNFRSF5 Protein (His Tag)

Catalog Number: 10774-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

Bp50; CDW40; p50; TNFRSF5

### Protein Construction:

A DNA sequence encoding the human CD40 (NP\_001241.1) extracellular domain (Met 1-Arg 193) was expressed, with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA . Immobilized recombinant human CD40 at 2 µg/ml (100 µl/well) can bind biotinylated human CD40L with a linear range of 15.6-500 ng/ml.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Glu 21

### Molecular Mass:

The secreted recombinant human CD40 comprises 184 amino acids with a predicted molecular mass of 20.7 kDa. As a result of glycosylation, rhCD40 migrates as an approximately 32 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

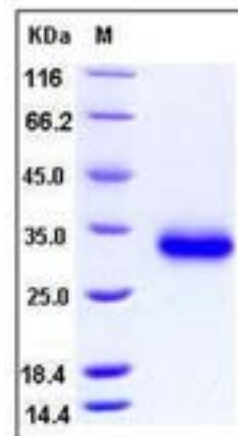
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

CD40, also known as TNFRSF5, is a member of the TNF receptor superfamily which are single transmembrane-spanning glycoproteins. CD40 protein plays an essential role in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. CD40 protein is expressed in B cells, dendritic cells, macrophages, endothelial cells, and several tumor cell lines. Defects in CD40 result in hyper-IgM immunodeficiency type 3 (HIGM3). In addition, CD40/CD40L interaction is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis.

## References

1. van Kooten C, *et al.* (2000). CD40-CD40 ligand. *J Leukoc Biol.* 67 (1): 2-17.
2. Bhushan A, *et al.* (2002). CD40:CD40L interactions in X-linked and non-X-linked hyper-IgM syndromes. *Immunol Res.* 24 (3): 311-24.
3. Chatzigeorgiou A, *et al.* (2009) CD40/CD40L signaling and its implication in health and disease. *Biofactors.* 35(6): 474-83.

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