

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 (Met1-Ala194) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

1. Immobilized Human CD40 His (Cat: 10774-H08H) at 2 µg/mL (100 µL/well) can bind Human CD40 Ligand (ECD, hFc & AVI Tag), Biotinylated (Cat: 10239-H42H-B), the EC50 is 6-20 ng/mL.

2. Loaded Recombinant Human CD40 Protein, His Tag (Cat.No.10774-H08H) on His1K Biosensor, can bind Recombinant Human CD40 Ligand Protein, hFc Tag (Cat.No.10239-H01H) with an affinity constant of 5.88nM as determined in BLI assay (Sartorius Octet RH16) (Routinely tested).

Endotoxin:

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

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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

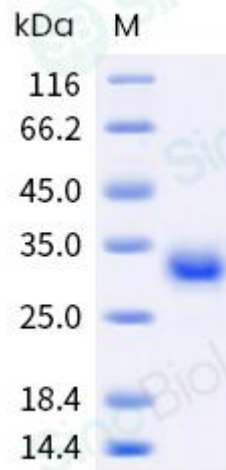
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.