Human CD40 / TNFRSF5 Protein (ECD, Fc Tag)

Catalog Number: 10774-H02H

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) (Met1-Arg193) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

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

Bio Activity:

Immobilized human CD40L-His (Cat:10239-H08E) at 10 μg/mL (100 μL/well) can bind Human CD40-Fc. The EC_{50} of Human CD40-Fc is 10-30 ng/mL.

Endotoxin:

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

Predicted N terminal: Glu 21

Molecular Mass:

The recombinant human CD40 consists 414 amino acids and predicts a molecular mass of 46.2 kDa. As a result of glycosylation, the apparent molecular mass of human CD40 is approximately 54.1 kDa 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℃ to -80℃.

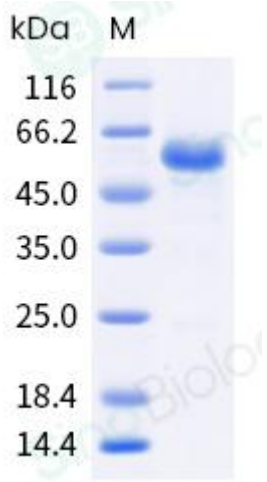
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.