Human CD40 / TNFRSF5 Protein (His & AVI Tag), Biotinylated

Catalog Number: 10774-H27H-B

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 a c-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.

Source: Human

Expression Host: Human Cells

QC Testing

Biotin/Protein Ratio:

0.5-1 as determined by the HABA assay.

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

Endotoxin:

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

Stability:

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

Predicted N terminal: Glu 21

Molecular Mass:

The recombinant human CD40 consists of 199 amino acids and predicts a molecular mass of 22.4 kDa.

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:

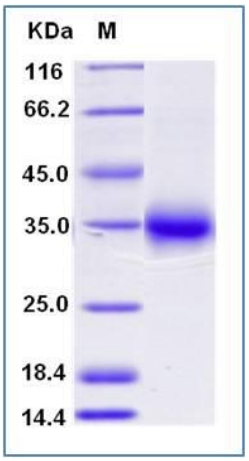
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.