

Human CD40 / TNFRSF5 Protein (His & Fc Tag)

Catalog Number: 10774-H03H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

Bp50; CDW40; p50; TNFRSF5; AI326936; Bp50; GP39; HIGM1; IGM; IMD3; p50; T-BAM; Tnfrsf5; TRAP

Protein Construction:

A DNA sequence encoding the human CD40 (NP_001241.1) extracellular domain (Met 1-Arg193) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 85 % 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 7.8-125 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 recombinant human CD40/Fc is a disulfide-linked homodimer. The reduced monomer consists of 421 amino acids and has a predicted molecular mass of 47.3 kDa. As a result of glycosylation, the apparent molecular mass of rhCD40/Fc monomer migrates with an apparent molecular mass of 55-60 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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:

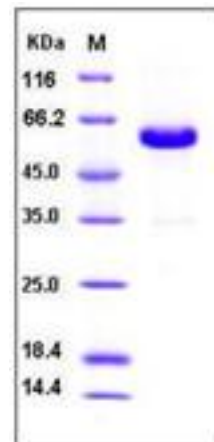
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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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