Human CD40 / TNFRSF5 Protein (His & Fc Tag)

Catalog Number: 10774-H03H

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-Arg193) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 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