Human CD50 / ICAM-3 Protein (His & Fc Tag)

Catalog Number: 10333-H03H

General Information

Gene Name Synonym:
CD50; CDW50; ICAM-3; ICAM-R

Protein Construction:
The extracellular domain (Met 1-His 485) of human ICAM3 (NP_002153.2) precursor 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: > 97 % as determined by SDS-PAGE

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: Gln 30

Molecular Mass:
The recombinant human ICAM3/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 703 amino acids and predicts a molecular mass of 77.2 kDa. By SDS-PAGE, the apparent molecular mass of rh ICAM3/Fc is approximately 125-135 kDa due to the glycosylation.

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

The protein ICAM-3, also known as CD50, is a member of the intercellular adhesion molecule (ICAM) family consisting three members. It is a DC-SIGN ligand that is constitutively expressed on resting leukocytes, and is thus an important molecule for the first immune response. ICAM-3 comprises of five immunoglobulin-like domains, and binds LFA-1 through its two N-terminal domains. It functions not only as an adhesion molecule, but also as a potent signalling molecule. ICAM-3 binds to LFA-1 on antigen-presenting cells (APC) stabilizing the T cell-APC interaction, facilitating signaling through the CD3/TCR complex. However, recent evidence using cultured and transformed T cells suggests ICAM-3 may also function in signaling. It has been reported that CD50 molecule can play a role in developing functionally mature T lymphocytes and its expression increases during the maturation process of T lymphocytes. In addition, the interactions of ICAM-3 and LFA-1 facilitate HIV-1- induced virological synapse formation between T cells. ICAM-3 is associated with an increase of cellular radio-resistance and cancer cell proliferation. It could be considered as a candidate for anti-cancer drug development and as a cancer diagnostic marker.

References