Human CD2 Protein (His Tag)

Catalog Number: 10982-H08H

General Information

Gene Name Synonym:
LFA-2; SRBC; T11

Protein Construction:
A DNA sequence encoding the human CD2 (NP_001758.2) extracellular domain (Met1-Asp209) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA.
Immunobilized human CD2-His at 10 μg/ml (100 μl/well) can bind human CD58-Fc (Cat:12409-H02H), The EC_{50} of human CD58-Fc (Cat:12409-H02H) is 0.04-0.1 μg/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: Lys 25

Molecular Mass:
The recombinant human CD2 consists of 196 amino acids and has a predicted molecular mass of 22.7 kDa. In SDS-PAGE under reducing conditions, hCD2 migrates as an approximately 37 kDa band due to 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°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

T-cell surface antigen CD2, also known as T-cell surface antigen T11/Leu-5, and SRBC, is a single-pass type I membrane protein. It contains one Ig-like C2-type domain and one Ig-like V-type domain. CD2 is a cell adhesion molecule expressed on T cells and is recognized as a target for CD48 (rats) and CD58 (humans). CD2 has been shown to set quantitative thresholds in T cell activation both in vivo and in vitro. Further, intracellular CD2 signaling pathways and networks are being discovered by the identification of several cytosolic tail binding proteins. CD2 interacts with lymphocyte function-associated antigen (LFA-3) and CD48/BCM1 to mediate adhesion between T-cells and other cell types. CD2 is implicated in the triggering of T-cells, the cytoplasmic domain of CD2 is implicated in the signaling function. The complex of CD2 and CD58 also plays an important role in enhancing the adhesion of T lymphocytes to target cells, and promoting hyperplasia and activation of T lymphocytes. As a cell surface glycoprotein, CD2 expressed on human T cells and natural killer (NK) cells and plays an important role in mediating cell adhesion in both T-lymphocytes and in signal transduction.

References