

Human CD44 Protein (His Tag)

Catalog Number: 12211-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CDW44; CSPG8; ECMR-III; HCELL; HUTCH-I; IN; LHR; MC56; MDU2; MDU3; MIC4; Pgp1

Protein Construction:

A DNA sequence encoding the N-terminal fragment (Met 1-Pro 220) of human CD44 (P16070-1) extracellular domain was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % 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 21

Molecular Mass:

The recombinant human CD44 consists of 211 amino acids and has a predicted molecular mass of 23.4 kDa. As a result of glycosylation, the apparent molecular mass of rhCD44 is approximately 43-48 kDa in SDS-PAGE under reducing conditions.

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:

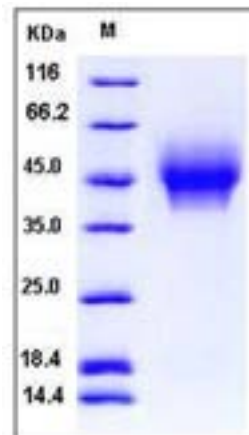
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CD44 is a type I transmembrane protein and a member of the cartilage link protein family. It is involved in cell-cell and cell-matrix interactions and signal transduction. Several CD44 ligands have been identified. The most extensively characterized ligand for CD44 is hyaluronan, a component of the extracellular matrix. CD44 protein is expressed on the majority of immune cells. The binding of CD44 to hyaluronan is induced on T lymphocytes after activation by antigen and on monocytes after stimulation by inflammatory agents. Under inflammatory conditions, CD44 on endothelial cells presents hyaluronan to CD44 on activated T lymphocytes and mediates a rolling interaction under flow conditions. Perturbations of the hyaluronan-CD44 interaction at the plasma membrane by various antagonists result in attenuation of receptor tyrosine kinase and transporter activities and inhibition of tumor progression in vivo. CD44 is known to interact with the ezrin family (ERM family) members and form a complex that plays diverse roles within both normal and abnormal cells, particularly cancer cells. CD44 and ezrin and their respective complex have properties suggesting that they may be important in the process of tumour-endothelium interactions, cell migrations, cell adhesion, tumour progression and metastasis.

References

1. Bajorath J. (2000) Molecular organization, structural features, and ligand binding characteristics of CD44, a highly variable cell surface glycoprotein with multiple functions. *Proteins*. 39(2): 103-11.
2. Johnson P, *et al.* (2000) A role for the cell adhesion molecule CD44 and sulfation in leukocyte-endothelial cell adhesion during an inflammatory response? *Biochem Pharmacol*. 59(5): 455-65.
3. Martin TA, *et al.* (2003) The role of the CD44/ezrin complex in cancer metastasis. *Crit Rev Oncol Hematol*. 46(2): 165-86.

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