

Human CD146 / MCAM Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10115-H08H

General Information

Gene Name Synonym:

CD146; MUC18

Protein Construction:

A DNA sequence encoding the extracellular domain of human CD146 precursor (NP_006491.2) (Met 1-Gly 559) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 98 % 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: Val 24

Molecular Mass:

The recombinant CD146 comprises 547 amino acids and predicts a molecular mass of 61.3 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 80-90 kDa band 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:

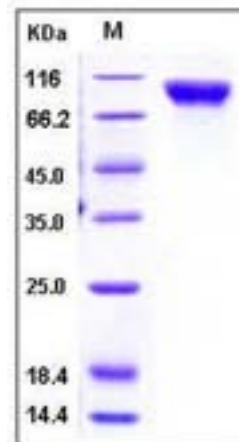
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The CD146 antigen, also known as melanoma cell adhesion molecule (MCAM) and MUC18, is an integral membrane glycoprotein belonging to the immunoglobulin superfamily. CD146 contains the characteristic immunoglobulin-like domains (V-V-C2-C2-C2), a transmembrane region and a short cytoplasmic tail. The CD146 expression is detected in endothelial cells in vascular tissue throughout the body, and plays a role in cell adhesion, as well as in cohesion of the endothelial monolayer at intercellular junctions in vascular tissue. As a Ca²⁺-independent cell adhesion molecule involved in heterophilic cell to cell interactions and a surface receptor, CD146 triggers tyrosine phosphorylation of FYN and PTK2 and subsequently induced signal transduction, proteolysis, or immune recognition. This protein is also expressed predominantly on metastatic lesions and advanced primary tumours, and thus has been suggested to play an important role in tumour progression and the development of metastasis in certain human carcinomas.

References

1. Mills L, *et al.* (2002) Fully human antibodies to MCAM/MUC18 inhibit tumor growth and metastasis of human melanoma. *Cancer Res.* 62(17): 5106-14.
2. Taira E, *et al.* (2004) Characterization of Gicerin/MUC18/CD146 in the rat nervous system. *J Cell Physiol.* 198(3): 377-87.
3. Fritzsche FR, *et al.* (2008) CD146 protein in prostate cancer: revisited with two different antibodies. *Pathology.* 40(5): 457-64.

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