

CD146/MCAM Protein, Human, Recombinant (His)

General Information

Synonyms:	MUC18;CD146;melanoma cell adhesion molecule
Protein Construction:	Val24-Gly559
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P43121
Molecular Weight:	60.8 kDa (Predicted); 80-110 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Immobilized Human MUC18, His Tag at 0.5 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-MUC18, hFc Tag with the EC50 of 12.3 ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

METCAM/MUC18 is an integral membrane cell adhesion molecule (CAM) in the Ig-like gene super-family. It can carry out common functions of CAMs which is to perform intercellular interactions and interaction of cell with extracellular matrix in tumor microenvironment, to interact with various signaling pathways and to regulate general behaviors of cells. The above positive correlation is fortuitous; actually METCAM/MUC18 acts as a tumor and metastasis suppressor for the ovarian carcinoma cells.

Reference

- 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.
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- Fritzsche FR,et al.(2008) CD146 protein in prostate cancer: revisited with two different antibodies. *Pathology.* 40(5): 457-64.
- Bidlingmaier S,et al.(2009) Identification of MCAM/CD146 as the target antigen of a human monoclonal antibody that recognizes both epithelioid and sarcomatoid types of mesothelioma. *Cancer Res.* 69(4): 1570-7.
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