

CD146/MCAM Protein, Mouse, Recombinant (His)

General Information

Synonyms:	CD146;melanoma cell adhesion molecule;CD149;s-gicerin;AV025631;Muc18;1-gicerin;s-endo
Protein Construction:	Val24-Val563
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8R2Y2-1
Molecular Weight:	60.9 kDa (Predicted); 75-95 kDa (Reducing conditions due to glycosylation)

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it.
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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- 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.
- Boneberg EM, et al. (2009) Soluble CD146 is generated by ectodomain shedding of membrane CD146 in a calcium-induced, matrix metalloprotease-dependent process. *Microvasc Res.* 78(3): 325-31.

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