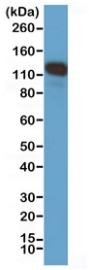
Recombinant CD146 Antibody RM249 / MCAM Recombinant MAb [clone RM249] (R20269)

Catalog No.	Formulation	Size
R20269-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

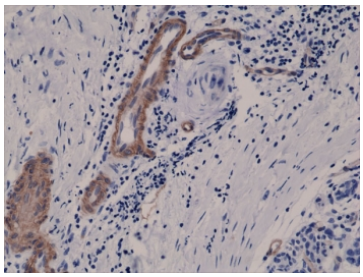
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM249
Purity	Protein A purified from animal origin-free supernatant
UniProt	P43121
Gene ID	4162
Applications	Immunohistochemistry (FFPE): 1:200-1:500 (1) Western blot: 1:1000-1:2000
Limitations	This Recombinant CD146 Antibody RM249 / MCAM Recombinant MAb is available for research use only.



Recombinant CD146 Antibody RM249 by WB in Human A375 Melanoma Cell Lysate. Western blot analysis of human A375 melanoma cell lysate using recombinant rabbit monoclonal CD146 antibody RM249 at a dilution of 1:1000. A strong, distinct immunoreactive band is detected at approximately 120 kDa, consistent with the expected electrophoretic migration of glycosylated MCAM (melanoma cell adhesion molecule), also known as MUC18. The observed molecular weight is higher than the predicted polypeptide mass because CD146 is extensively glycosylated. Minimal additional immunoreactivity is visible.



Recombinant CD146 Antibody RM249 by IHC in Human Breast Cancer Tissue. Immunohistochemistry staining of FFPE human breast cancer tissue using recombinant rabbit monoclonal CD146 antibody RM249 at 1:400. Brown immunoreactivity is concentrated in vascular structures within the tumor-associated stroma, with prominent staining along vessel walls and associated cells. Much of the surrounding tissue exhibits comparatively weak staining. The distribution is consistent with MCAM expression in vascular-associated cells, reflecting the role of CD146 in endothelial biology and cell adhesion.

Description

Recombinant CD146 Antibody RM249 recognizes CD146, a cell surface glycoprotein encoded by the MCAM gene. Also known as melanoma cell adhesion molecule, MUC18, and Mel-CAM, CD146 belongs to the immunoglobulin superfamily and participates in cellular adhesion, migration, and interactions with the surrounding microenvironment. Originally identified as a melanoma-associated antigen, MCAM is now recognized as an important protein in vascular biology, endothelial organization, and cellular signaling. Its expression in normal and malignant tissues makes it relevant to investigations of angiogenesis, tumor progression, and cellular differentiation.

CD146 is a type I transmembrane glycoprotein containing five extracellular immunoglobulin-like domains, a membrane-spanning region, and a cytoplasmic tail involved in intracellular signaling. Extensive glycosylation contributes to its relatively high apparent molecular weight, commonly observed near 110-130 kDa in Western blot experiments. Alternative splicing produces isoforms with different cytoplasmic domains that can influence intracellular interactions and cellular localization. These structural characteristics allow MCAM to participate in adhesion-associated signaling and communication between neighboring cells.

Melanoma cell adhesion molecule is expressed by vascular endothelial cells, smooth muscle cells, pericytes, and subsets of mesenchymal stromal cells. Within the vasculature, CD146 contributes to endothelial junction organization, cellular migration, and processes associated with angiogenesis. Its expression is also observed in certain activated immune cell populations, including subsets of T lymphocytes, where it has been investigated as a marker associated with cellular activation and migration.

In cancer research, MCAM is particularly associated with melanoma, where increased expression has been linked to invasive behavior, cellular motility, and metastatic progression. Experimental studies suggest that CD146 can influence signaling pathways involved in cytoskeletal organization, interactions with extracellular matrix components, and communication with stromal and vascular cells. Expression of MUC18 has also been reported in other malignancies, although its biological significance varies according to tumor type and cellular context.

Western blotting can be used to investigate CD146 protein expression and glycosylation-dependent electrophoretic migration, while immunohistochemistry provides information about its distribution within tissue sections. Recombinant monoclonal antibodies offer a defined antibody sequence and consistent clone identity, supporting reproducibility in research applications.

A Recombinant CD146 Antibody RM249 from NSJ Bioreagents supports investigations of MCAM expression, melanoma-associated adhesion mechanisms, vascular endothelial biology, angiogenesis, and cellular migration.

For an alternative antibody targeting the same cell adhesion molecule, see our MCAM Antibody MCAM/3046, a mouse monoclonal antibody featuring human melanoma IHC and protein microarray specificity validation.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Recombinant CD146 Antibody RM249 / MCAM Recombinant MAb antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

A peptide corresponding to the residues near C-terminus of human CD146 was used as the immunogen for this Recombinant CD146 Antibody RM249.

Storage

Store the Recombinant CD146 Antibody RM249 at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

MCAM antibody, MUC18 antibody, Mel-CAM antibody, Melanoma Cell Adhesion Molecule antibody, Cell Surface Glycoprotein MUC18 antibody, CD146 Antigen antibody, Recombinant MCAM antibody, Recombinant MUC18 antibody

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