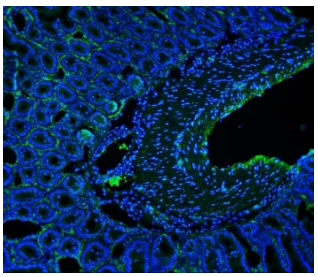
CD146 Rodent Antibody / MCAM Polyclonal Antibody (RQ5987)

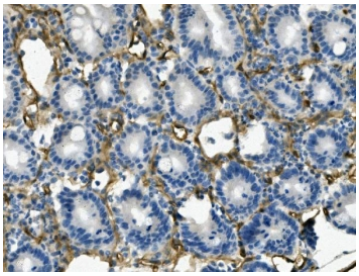
Catalog No.	Formulation	Size
RQ5987	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

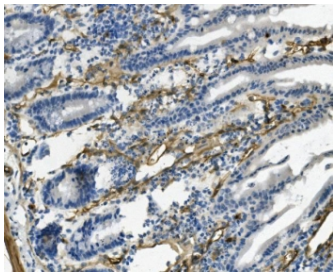
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q8R2Y2
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry: 1-2ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This CD146 Rodent Antibody / MCAM Polyclonal Antibody is available for research use only.



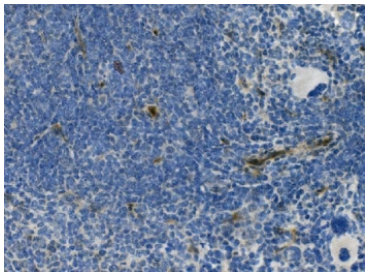
CD146 Rodent Antibody by IF in Mouse Intestine Tissue. Immunofluorescence staining of FFPE mouse intestine tissue using rabbit polyclonal CD146 antibody. Heat-induced epitope retrieval was performed by steaming tissue sections in EDTA buffer (pH 8.0) for 20 minutes. Green fluorescence demonstrates MCAM immunoreactivity in vascular and stromal structures surrounding the intestinal glands, with comparatively weak staining in much of the glandular epithelium. Cell nuclei are counterstained blue with DAPI.



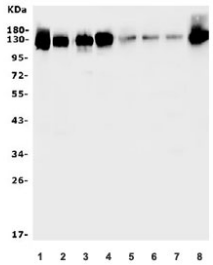
CD146 Rodent Antibody by IHC in Mouse Intestine Tissue. Immunohistochemistry staining of FFPE mouse intestine tissue using rabbit polyclonal CD146 antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer (pH 8.0) for 20 minutes, followed by cooling. Brown immunoreactivity is observed in stromal and vascular-associated cells surrounding the intestinal glands, with staining concentrated along cellular boundaries and within the connective tissue between glandular structures. Nuclei are counterstained blue.



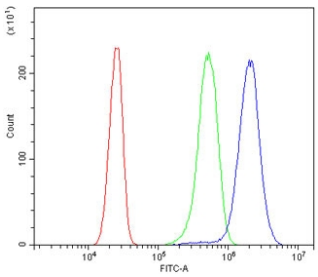
CD146 Rodent Antibody by IHC in Mouse Intestine Tissue. Immunohistochemistry staining of FFPE mouse intestine tissue using rabbit polyclonal CD146 antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer (pH 8.0) for 20 minutes, followed by cooling. Brown MCAM immunoreactivity is distributed throughout stromal regions surrounding the intestinal glands, with prominent staining along elongated vascular and connective tissue structures. Much of the glandular epithelium exhibits comparatively weaker staining, and nuclei are counterstained blue.



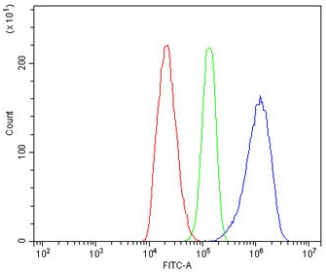
CD146 Rodent Antibody by IHC in Rat Spleen Tissue. Immunohistochemistry staining of FFPE rat spleen tissue using rabbit polyclonal CD146 antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer (pH 8.0) for 20 minutes, followed by cooling. Scattered brown immunoreactivity is observed in vascular-associated structures and selected stromal cells, while much of the surrounding splenic tissue exhibits relatively weak staining. Nuclei are counterstained blue.



CD146 Rodent Antibody by WB in Rat and Mouse Tissue and Cell Lysates. Western blot analysis of rat lung (lane 1), rat ovary (lane 2), rat PC-12 cells (lane 3), mouse lung (lane 4), mouse spleen (lane 5), mouse thymus (lane 6), mouse kidney (lane 7), and mouse ovary (lane 8) using rabbit polyclonal CD146 antibody. Strong immunoreactive bands are detected at approximately 120-130 kDa in lanes 1-3 and 8, with weaker bands at similar molecular weights in lanes 4-7. These bands are consistent with the expected migration range of glycosylated MCAM, a cell surface adhesion molecule with an apparent molecular weight that varies according to glycosylation.



CD146 Rodent Antibody by FACS in Mouse Neuro-2a Cells. Flow cytometry analysis of mouse Neuro-2a cells using rabbit polyclonal CD146 antibody at 1 ug per million cells following blocking with goat serum. The histogram compares antibody-stained cells (blue), isotype control (green), and unstained cells (red). The antibody-stained population exhibits a distinct rightward fluorescence shift relative to both controls, demonstrating detection of MCAM/CD146 in Neuro-2a cells.



CD146 Rodent Antibody by FACS in Rat C6 Cells. Flow cytometry analysis of rat C6 cells using rabbit polyclonal CD146 antibody at 1 ug per million cells following blocking with goat serum. The histogram compares antibody-stained cells (blue), isotype control (green), and unstained cells (red). A clear rightward fluorescence shift is observed in the antibody-stained population compared with both controls, demonstrating detection of MCAM/CD146 in rat C6 cells.

Description

CD146 Rodent Antibody recognizes melanoma cell adhesion molecule (MCAM), a transmembrane glycoprotein belonging to the immunoglobulin superfamily. Also known as CD146, MUC18, and Mel-CAM, this protein is involved in cell adhesion, migration, and interactions between cells and their surrounding environment. MCAM was originally identified as a melanoma-associated antigen but is now recognized as an important component of normal vascular tissues. Its expression and biological functions make it relevant to investigations of endothelial biology, angiogenesis, and cellular differentiation.

MCAM is a type I membrane protein containing five extracellular immunoglobulin-like domains, a transmembrane region, and a cytoplasmic tail involved in intracellular signaling. Extensive glycosylation contributes to its relatively high apparent molecular weight, while alternative splicing produces isoforms with different cytoplasmic regions. These structural features influence the protein's interactions with other cellular components and its participation in signaling pathways associated with cell adhesion and migration.

CD146 is expressed by vascular endothelial cells, smooth muscle cells, pericytes, and subsets of mesenchymal stromal cells. Within the vasculature, MCAM contributes to endothelial organization, cellular interactions, and processes associated with blood vessel formation. Experimental studies have linked CD146 to signaling pathways involved in endothelial migration and angiogenesis. Its expression in perivascular cells also makes it useful for investigating vascular-associated cell populations and their roles in tissue maintenance and remodeling.

MCAM is additionally expressed by selected immune cell populations, including subsets of activated T lymphocytes. Research suggests that CD146 may participate in immune cell migration and interactions with vascular endothelium, although its functions vary among cell types and physiological conditions. In cancer biology, MCAM expression has been associated with melanoma progression and invasive behavior, as well as changes in cellular adhesion and signaling in other malignancies.

Rodent models are widely used to investigate vascular development, inflammatory responses, tissue remodeling, and tumor-associated angiogenesis. Examining MCAM expression in mouse and rat tissues can provide information about the distribution of vascular and stromal cell populations under different experimental conditions. Immunohistochemistry and immunofluorescence can reveal tissue-specific expression patterns, while Western blotting provides complementary information about protein abundance and electrophoretic migration.

A CD146 Rodent Antibody from NSJ Bioreagents supports research investigating MCAM expression, vascular endothelial biology, angiogenesis, cell adhesion, and cellular migration in mouse and rat experimental models.

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

Optimal dilution of the CD146 Rodent Antibody / MCAM Polyclonal Antibody should be determined by the researcher.

Immunogen

Recombinant mouse protein (amino acids E27-E621) was used as the immunogen for the CD146 Rodent Antibody.

Storage

After reconstitution, the CD146 Rodent Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

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

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