

Anti-CD146 Antibody
Catalog # ABO11044**Specification**

Anti-CD146 Antibody - Product Information

Application	WB, IHC
Primary Accession	P43121
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Cell surface glycoprotein MUC18(MCAM) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CD146 Antibody - Additional Information

Gene ID 4162

Other Names

Cell surface glycoprotein MUC18, Cell surface glycoprotein P1H12, Melanoma cell adhesion molecule, Melanoma-associated antigen A32, Melanoma-associated antigen MUC18, S-endo 1 endothelial-associated antigen, CD146, MCAM, MUC18

Calculated MW

71607 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Membrane; Single-pass type I membrane protein.

Tissue Specificity

Detected in endothelial cells in vascular tissue throughout the body. May appear at the surface of neural crest cells during their embryonic migration. Appears to be limited to vascular smooth muscle in normal adult tissues. Associated with tumor progression and the development of metastasis in human malignant melanoma. Expressed most strongly on metastatic lesions and advanced primary tumors and is only rarely detected in benign melanocytic nevi and thin primary melanomas with a low probability of metastasis.

Protein Name

Cell surface glycoprotein MUC18

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human CD146(584-600aa KKGKLPCRRSGKQEITL), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 3 Ig-like C2-type (immunoglobulin-like) domains.

Anti-CD146 Antibody - Protein Information

Name MCAM

Synonyms MUC18

Function

Plays a role in cell adhesion, and in cohesion of the endothelial monolayer at intercellular junctions in vascular tissue. Its expression may allow melanoma cells to interact with cellular elements of the vascular system, thereby enhancing hematogeneous tumor spread. Could be an adhesion molecule active in neural crest cells during embryonic development. Acts as a surface receptor that triggers tyrosine phosphorylation of FYN and PTK2/FAK1, and a transient increase in the intracellular calcium concentration.

Cellular Location

Membrane; Single-pass type I membrane protein.

Tissue Location

Detected in endothelial cells in vascular tissue throughout the body. May appear at the surface of neural crest cells during their embryonic migration. Appears to be limited to vascular smooth muscle in normal adult tissues. Associated with tumor progression and the development of metastasis in human malignant melanoma. Expressed most strongly on metastatic lesions and advanced primary tumors and is only rarely detected in benign melanocytic nevi and thin primary melanomas with a low probability of metastasis

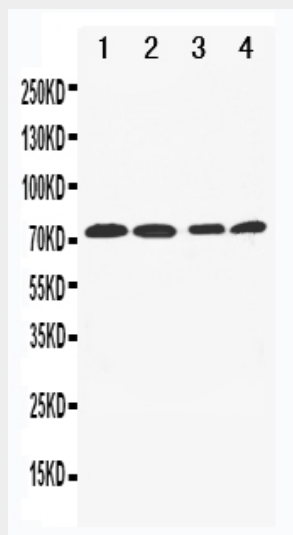
Anti-CD146 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

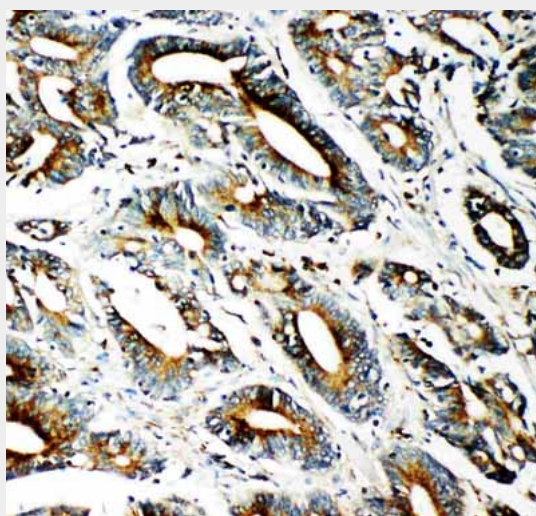
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CD146 Antibody - Images



Anti-CD146 antibody, ABO11044, Western blotting
Lane 1: A549 Cell Lysate
Lane 2: A549 Cell Lysate
Lane 3: HELA Cell Lysate
Lane 4: SW620 Cell Lysate



Anti-CD146 antibody, ABO11044, IHC(P)
IHC(P): Human Intestinal Cancer Tissue

Anti-CD146 Antibody - Background

CD146(cluster of differentiation 146) also known as the melanoma cell adhesion molecule(MCAM) or cell surface glycoprotein MUC18, is a 113kDa cell adhesion molecule currently used as a marker for endothelial cell lineage. In humans, the CD146 protein is encoded by the MCAM gene. By radiation hybrid analysis, Kuske and Johnson(1999) mapped the CD146 gene to chromosome 11q23.3. It is a member of the immunoglobulin superfamily, is homologous to several cell adhesion molecules and is associated with tumor progression and the development of metastasis in human malignant melanoma. CD146 has been demonstrated to appear on a small subset of T and B lymphocytes in the peripheral blood of healthy individuals. The CD146+ T cells display an immunophenotype consistent with effector memory cells and have a distinct gene profile from the

CD146- T cells. CD146 has been seen as a marker for mesenchymal stem cells isolated from multiple adult and fetal organs, and its expression may be linked to multipotency; mesenchymal stem cells with greater differentiation potential express higher levels of CD146 on the cell surface.