

# Anti-CD146 Antibody

Catalog # ABO12733

## Product Information

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|--------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC-P                                                                                                           |
| <b>Primary Accession</b> | <a href="#">P43121</a>                                                                                              |
| <b>Host</b>              | Rabbit                                                                                                              |
| <b>Reactivity</b>        | Human                                                                                                               |
| <b>Clonality</b>         | Polyclonal                                                                                                          |
| <b>Format</b>            | Lyophilized                                                                                                         |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for Cell surface glycoprotein MUC18(MCAM) detection. Tested with WB, IHC-P in Human. |
| <b>Reconstitution</b>    | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                |

## Additional Information

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| <b>Gene ID</b>                  | 4162                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Other Names</b>              | 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                                                                                                                                                                                                                                                                                                  |
| <b>Calculated MW</b>            | 71607                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Application Details</b>      | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 $\mu$ g/ml, Human, By Heat<br>Western blot, 0.1-0.5 $\mu$ g/ml, Human                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Subcellular Localization</b> | Membrane; Single-pass type I membrane protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Tissue Specificity</b>       | 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. |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Name</b>             | Cell surface glycoprotein MUC18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen</b>             | E.coli-derived human CD146 recombinant protein (Position: H59-A401). Human CD146 shares 73% amino acid (aa) sequence identity with both mouse and rat CD146.                       |
| <b>Purification</b>          | Immunogen affinity purified.                                                                                                                                                       |
| <b>Cross Reactivity</b>      | No cross reactivity with other proteins                                                                                                                                            |
| <b>Storage</b>               | 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. |
| <b>Sequence Similarities</b> | Contains 3 Ig-like C2-type (immunoglobulin-like) domains.                                                                                                                          |

## Protein Information

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| <b>Name</b>              | MCAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Synonyms</b>          | MUC18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Function</b>          | 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.  |
| <b>Cellular Location</b> | Membrane; Single-pass type I membrane protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Tissue Location</b>   | 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 |

## Background

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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. MCAM, 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. By radiation hybrid analysis, this gene is mapped to chromosome 11q23.3. MCAM has been demonstrated to appear on a small subset of T and B lymphocytes in the peripheral blood of healthy individuals. MCAM 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 MCAM on the cell surface.

## Images

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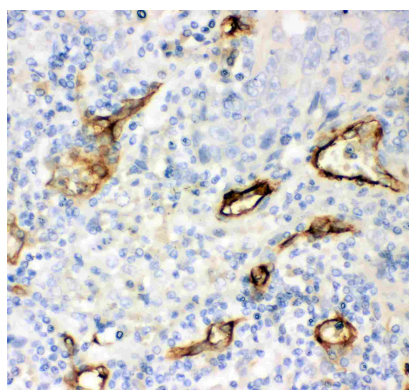
Anti- CD146 antibody, ABO12733, Western blottingAll lanes: Anti CD146 (ABO12733) at 0.5ug/mlWB: Recombinant Human CD146 Protein 0.5ngPredicted bind



size: 48KD  
Observed bind size: 48KD



Anti- CD146 antibody, ABO12733, Western blotting  
All lanes: Anti CD146 (ABO12733) at 0.5ug/ml  
Lane 1: A375 Whole Cell Lysate at 40ug  
Lane 2: HELA Whole Cell Lysate at 40ug  
Lane 3: HEPG2 Whole Cell Lysate at 40ug  
Predicted bind size: 72KD  
Observed bind size: 100KD



Anti- CD146 antibody, ABO12733, IHC(P)  
IHC(P): Human Lung Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.