Human CD146 (MCAM)
Clone N1238
Cat. no. MONX10854

Specificity
CD146 protein is also known as the melanoma metastasis-associated surface molecule, MUC18, A32 antigen, S-Endo-1 and the melanoma cell adhesion molecule, MCAM or Mel-CAM. Originally, the CD146 molecule was defined as a marker of tumour progression and metastasis formation in human melanoma. More recently, it has been found to be expressed on endothelial cells, smooth muscle and cerebellar cortex. Structurally, CD146 is an integral membrane glycoprotein of 113kD with the characteristic V-V-C2-C2-C2 immunoglobulin-like domain structure. It shares considerable homology with chicken neural adhesion molecule, chicken gicerin, goldfish neurolin and is also closely related to the human blood group glycoprotein, lutheran. Although CD146 molecule functions as a cell adhesion molecule it interacts with an as yet uncharacterised ligand. CD146 can be induced on all T cells via PHA, recall antigen, superantigen and T cell receptor/CD3 stimulation. This suggests that the CD146 molecule is involved in the extravasation and homing of activated T cells. CD146 protein can promote tumour progression in human melanoma, possibly through enhanced interaction between melanoma cells and endothelial cells. In contrast, CD146 protein may act as a tumour suppressor in breast carcinoma with expression frequently lost in some cases.

Immunoglobulin type
Murine IgG1

Use
The antibody can be used for immunohistochemistry on paraffin sections and for Western blotting.

Instructions for use
Immunohistochemistry:
Typical working dilution 1:25 - 1:50.
High temperature antigen unmasking technique.
60 minutes primary antibody incubation at 25°C.
Standard ABC technique.

Western blotting:
Typical working dilution 1:50 - 1:100.

Staining pattern: Membrane and cytoplasmic.
Antigen used for immunizations: Prokaryotic recombinant fusion protein corresponding to a portion of the external domain of the CD146 molecule.

Positive control
Appendix

Presentation
Lyophilised tissue culture supernatant containing 15mM sodium azide.
Reconstitute with 1ml or 0.1ml of sterile distilled water as indicated on vial label.
Literature


Storage and Handling

Store unopened lyophilised antibody at 4°C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4°C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20°C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.

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