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MCAM Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1808a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P43121
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6C3E6
Isotype	IgG1
Calculated MW	71607
Description	The protein encoded by this gene 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 surface receptor that triggers tyrosine phosphorylation of FYN and PTK2/FAK1, and a transient increase in the intracellular calcium concentration.
Immunogen	Purified recombinant fragment of human MCAM (AA: 84-189) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

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
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MCAM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

Background

The protein encoded by this gene 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 surface receptor that triggers tyrosine phosphorylation of FYN and PTK2/FAK1, and a transient increase in the intracellular calcium concentration. ; ;

References

1. Cancer Lett. 2013 Apr 28;330(2):150-62. 2. J Biol Chem. 2013 Jan 25;288(4):2571-9.

Images

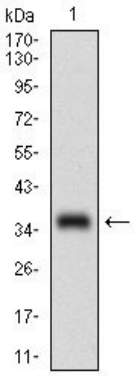
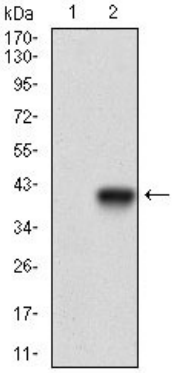


Figure 1: Western blot analysis using MCAM mAb against human MCAM recombinant protein. (Expected MW is 37.7 kDa)

Figure 2: Western blot analysis using MCAM mAb against HEK293 (1) and MCAM (AA: 84-189)-hIgGFc transfected HEK293 (2) cell lysate.



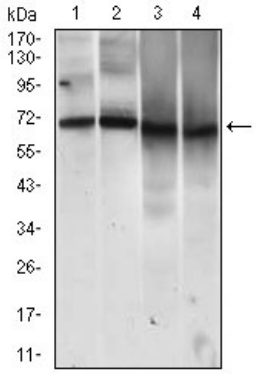


Figure 3: Western blot analysis using MCAM mouse mAb against HUVE-12 (1), EVC-304 (2), HELA (3) and MCF-7 (4) cell lysate.

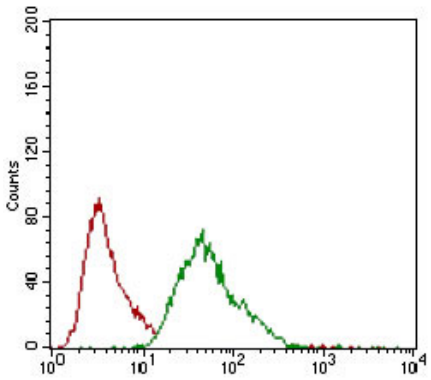


Figure 4: Flow cytometric analysis of MCF-7 cells using MCAM mouse mAb (green) and negative control (red).

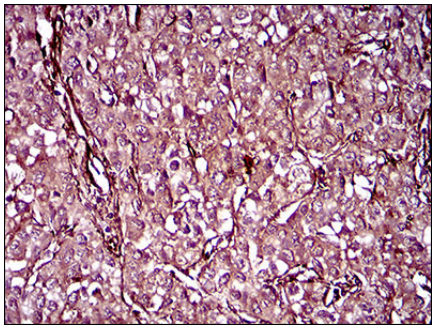


Figure 5: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using MCAM mouse mAb with DAB staining.

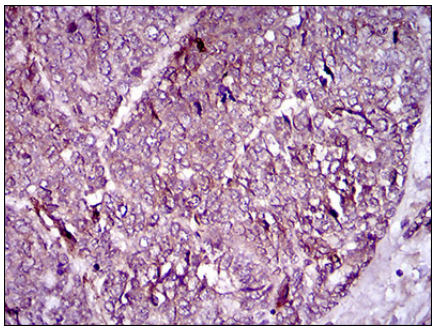


Figure 6: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using MCAM mouse mAb with DAB staining.