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MCAM Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1862a

Product Information

Application	WB, IHC, E
Primary Accession	P43121
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6C3F1
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 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

Transferrin receptor is a carrier protein for transferrin. It is needed for the import of iron into the cell and is regulated in response to intracellular iron concentration. Low iron concentrations promote increased levels of transferrin receptor, to increase iron intake into the cell. Thus, transferrin receptor maintains cellular iron homeostasis. Expression of human TFR1, but not human TFR2, in hamster cell lines markedly enhanced the infection of viruses pseudotyped with the glycoprotein of Machupo, Guanarito, and Junin viruses, but not with those of Lassa or lymphocytic choriomeningitis viruses. An anti-TFR1 antibody efficiently inhibited the replication of Machupo, Guanarito, Junin, and Sabia viruses, but not that of Lassa virus.TFR1 is a cellular receptor for New World hemorrhagic fever arenaviruses. ; ;

References

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

Images

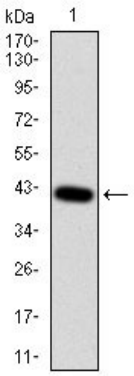
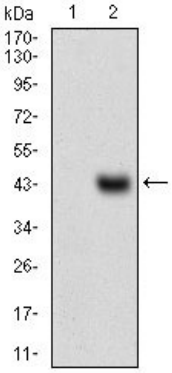


Figure 1: Western blot analysis using MCAM mAb against human MCAM recombinant protein. (Expected MW is 37.7 kDa)

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



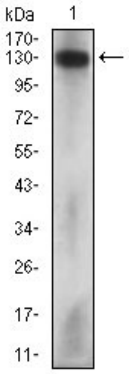


Figure 3: Western blot analysis using MCAM mouse mAb against Hela cell lysate.

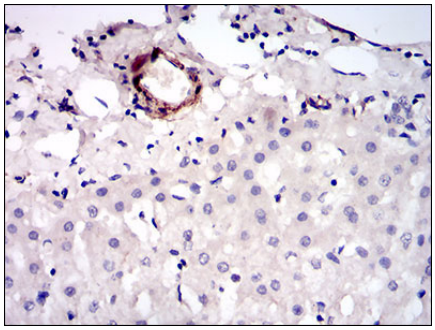


Figure 4: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using MCAM mouse mAb with DAB staining.

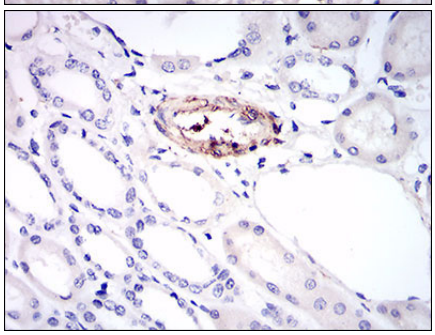


Figure 5: Immunohistochemical analysis of paraffin-embedded kidney tissues using MCAM mouse mAb with DAB staining.