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CD9 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1648a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P21926
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5G6
Isotype	IgG1
Calculated MW	25416
Description	This gene encodes a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Tetraspanins are cell surface glycoproteins with four transmembrane domains that form multimeric complexes with other cell surface proteins. The encoded protein functions in many cellular processes including differentiation, adhesion, and signal transduction, and expression of this gene plays a critical role in the suppression of cancer cell motility and metastasis.
Immunogen	Synthesized peptide of human CD9.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	928
Other Names	CD9 antigen, 5H9 antigen, Cell growth-inhibiting gene 2 protein, Leukocyte antigen MIC3, Motility-related protein, MRP-1, Tetraspanin-29, Tspan-29, p24, CD9, CD9, MIC3, TSPAN29
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	CD9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD9 {ECO:0000303|PubMed:1840589, ECO:0000312|HGNC:HGNC:1709}
Function	Integral membrane protein associated with integrins, which regulates different processes, such as sperm-egg fusion, platelet activation and aggregation, and cell adhesion (PubMed:14575715, PubMed:18541721, PubMed:8478605). Present at the cell surface of oocytes and plays a key role in sperm-egg fusion, possibly by organizing multiprotein complexes and the morphology of the membrane required for the fusion (By similarity). In myoblasts, associates with CD81 and PTGFRN and inhibits myotube fusion during muscle regeneration (By similarity). In macrophages, associates with CD81 and beta-1 and beta-2 integrins, and prevents macrophage fusion into multinucleated giant cells specialized in ingesting complement-opsonized large particles (PubMed:12796480). Also prevents the fusion between mononuclear cell progenitors into osteoclasts in charge of bone resorption (By similarity). Acts as a receptor for PSG17 (By similarity). Involved in platelet activation and aggregation (PubMed:18541721). Regulates paranodal junction formation (By similarity). Involved in cell adhesion, cell motility and tumor metastasis (PubMed:7511626, PubMed:8478605).
Cellular Location	Cell membrane; Multi-pass membrane protein. Membrane; Multi-pass membrane protein. Secreted, extracellular exosome {ECO:0000250|UniProtKB:P40240}. Note=Present at the cell surface of oocytes. Accumulates in the adhesion area between the sperm and egg following interaction between IZUMO1 and its receptor IZUMO1R/JUNO {ECO:0000250|UniProtKB:P40240}
Tissue Location	Detected in platelets (at protein level) (PubMed:19640571). Expressed by a variety of hematopoietic and epithelial cells (PubMed:19640571).

References

1. Biochem Biophys Res Commun. 2009 Apr 24;382(1):57-62. 2. Int J Cancer. 2009 Jun 15;124(12):2911-6.

Images

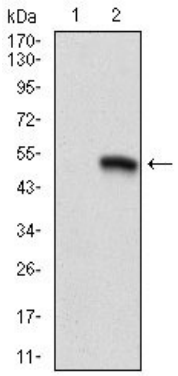


Figure 1: Western blot analysis using CD9 mAb against HEK293 (1) and CD9(AA: 37-228)-hIgGFc transfected HEK293 (2) cell lysate.

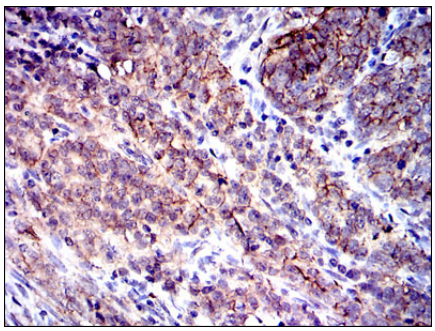


Figure 2: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CD9 mouse mAb with DAB staining.

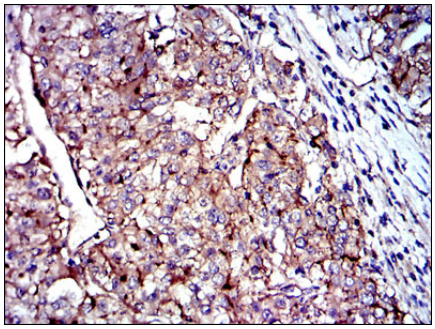


Figure 3: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using CD9 mouse mAb with DAB staining.

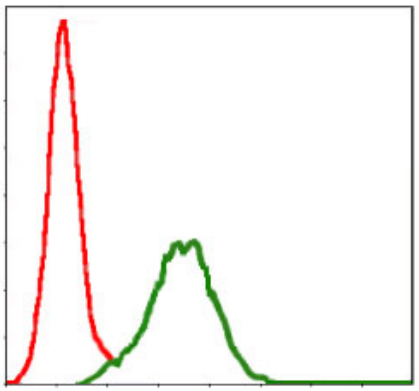


Figure 4: Flow cytometric analysis of Jurkat cells using CD9 mouse mAb (green) and negative control (red).

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