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CD9 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1648a

Specification

CD9 Antibody - Product Information

Application	**E, WB, IHC, FC**
Primary Accession	P21926
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**25kDa KDa**

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.

CD9 Antibody - 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
E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400

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.

CD9 Antibody - 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).

CD9 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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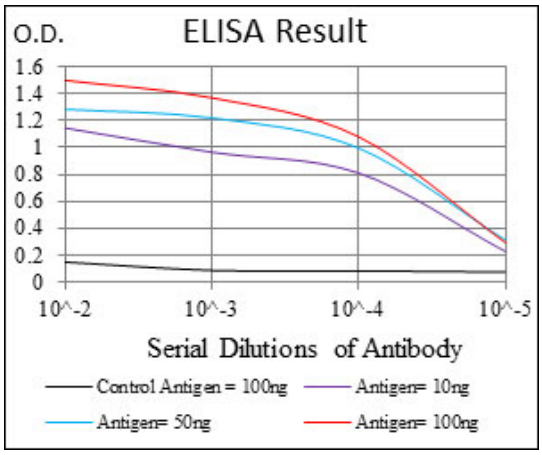

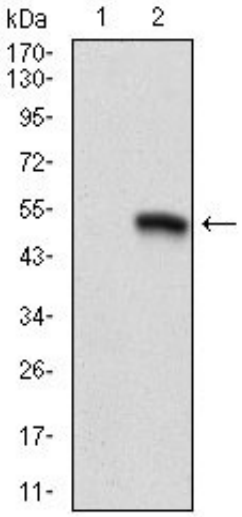

Figure 1: Western blot analysis using CD9 mAb against HEK293 (1) and CD9(AA: 37-228)-hIgGFc transfected HEK293 (2) cell lysate.

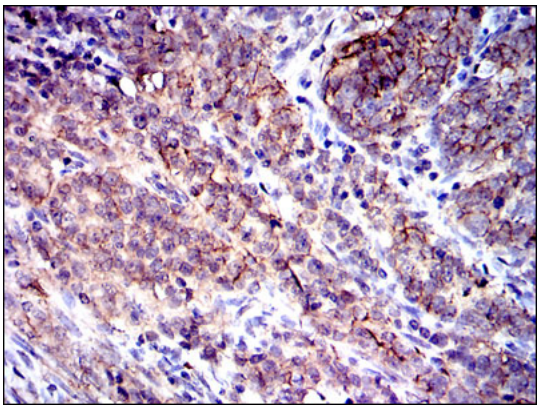

Figure 2: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CD9 mouse mAb with DAB staining.

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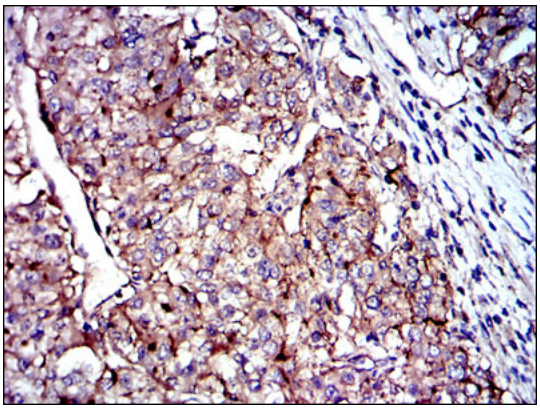

Figure 3: Immunohistochemical analysis of paraffin-embedded kidney cancer tissues using CD9 mouse mAb with DAB staining.

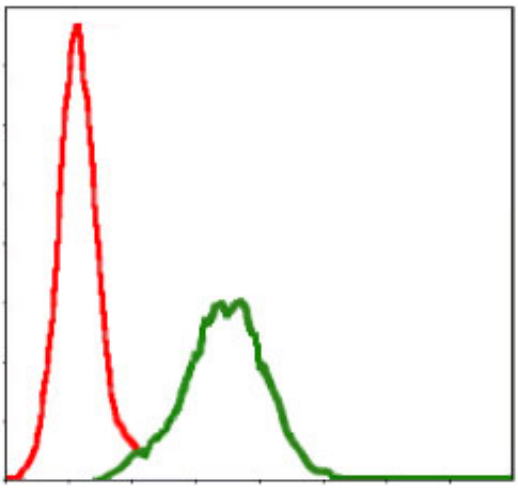

Figure 4: Flow cytometric analysis of Jurkat cells using CD9 mouse mAb (green) and negative control (red).

CD9 Antibody - References

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