

# CD9 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1482D

### **Product Information**

**Application** WB, IHC-P, IF, E

Primary Accession
Reactivity
Human, Rat
Host
Clonality
Polyclonal
Isotype
Rabbit IgG
Calculated MW
Antigen Region
P21926
Human, Rat
Rabbit
Rabbit
Polyclonal
Rabbit IgG
25416

## **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

**Target/Specificity** This CD9 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 115-145 amino acids from the Central

region of human CD9.

**Dilution** WB~~1:1000 IHC-P~~1:25 E~~Use at an assay dependent

concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This

antibody is purified through a protein A column, followed by peptide affinity

purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** CD9 Antibody (Center) 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).

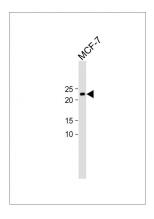
## **Background**

CD9 is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This protein is a cell surface glycoprotein that is known to complex with integrins and other transmembrane 4 superfamily proteins. It can modulate cell adhesion and migration and also trigger platelet activation and aggregation. In addition, the protein appears to promote muscle cell fusion and support myotube maintenance.

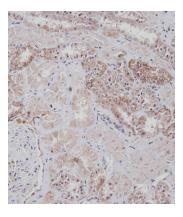
## References

Ovalle, S., Int. J. Cancer 121 (10), 2140-2152 (2007) Kovalenko, O.V., Mol. Cell Proteomics 6 (11), 1855-1867 (2007) Abache, T., J. Cell. Biochem. 102 (3), 650-664 (2007) Horejsi, V., FEBS Lett. 288 (1-2), 1-4 (1991)

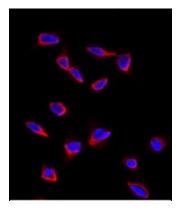
## **Images**



All lanes: Anti-CD9 Antibody (Center) at 1:500 dilution Lane 1: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 23 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of AP1482D on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunofluorescence analysis of anti-CD9 Antibody (Center) in HeLa cells. 0.025 mg/ml primary antibody was followed by Alexa-Fluor-546-conjugated donkey anti-rabbit lgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.

# **Citations**

• <u>Diagnostic and prognostic relevance of circulating exosomal miR-373, miR-200a, miR-200b and miR-200c in patients with epithelial ovarian cancer.</u>

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.