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CD9 Antibody
Catalog # ASC12030

Specification

CD9 Antibody - Product Information

Application	**WB**
Primary Accession	P21926
Other Accession	4502693, NP_001760, 928
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**25416**
Application Notes	**CD9 antibody can be used for Western blot at 1 - 2 µg/mL.**

CD9 Antibody - Additional Information

Gene ID **928**

Other Names
CD9 Antibody: CD9 molecule, MIC3, MRP-1, BTCC-1, DRAP-27, TSPAN29, TSPAN-29

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:<a

href="http://www.uniprot.org/citations/8478605" target="_blank">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}

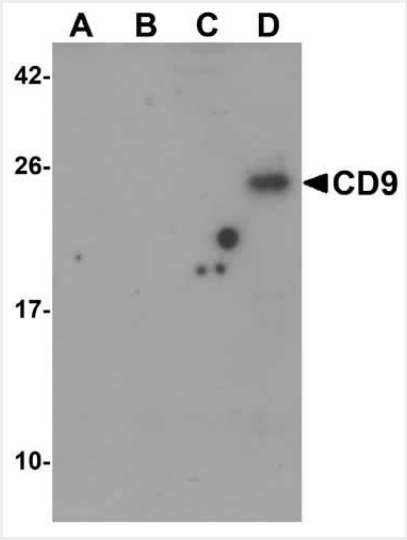
Tissue Location
Detected in platelets (at protein level) (PubMed:19640571). Expressed by a variety of hematopoietic and epithelial cells (PubMed:19640571).

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

CD9 Antibody - Images



Western blot analysis of CD9 in (A) human ovary, (B) human uterus, (C) human ovary tumor, and (D) human uterus tumor tissue lysate with CD9 antibody at 1 µg/ml.

CD9 Antibody - Background

CD9 Antibody: CD9 is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Like other tetraspanins, CD9 is a cell surface glycoproteins play a role in many cellular processes including differentiation, adhesion, and signal transduction (1). CD9 expression plays a critical role in the suppression of cancer cell motility and metastasis. In one study, the knockdown of CD9 expression suppressed the metastatic capacity of human breast cancer cells (2),

while other results have shown the opposite effect, suggesting that different proteins associated with CD9 account for its abilities to promote or suppress metastasis (3).

CD9 Antibody - References

Murayama Y, Oritani K, and Tsutsui S. Novel CD9-targeted therapies in gastric cancer. World J. Gastroenterol. 2015; 21:3206-13.;Rappa G, Green TM, Karbanova J, Corbeil D, et al. Tetraspanin CD9 determines invasiveness and tumorigenicity of human breast cancer cells. Oncotarget 2015; 6:7970-91.;Zoller M. Tetraspanins: push and pull in suppressing and promoting metastasis. Nat. Rev. Cancer 2009; 9:40-55.;