

CD9 Antibody

Catalog # ASC12030

Product Information

Application	WB, E
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 μ g/mL.

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.

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).

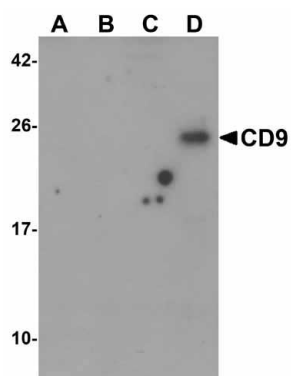
Background

CD9 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).

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.;

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.

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