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Anti-CD9 Picoband Antibody

Catalog # ABO12615

Product Information

Application	WB, IHC-P
Primary Accession	P40240
Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for CD9 antigen(CD9) detection. Tested with WB, IHC-P in Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	12527
Other Names	CD9 antigen, CD9, Cd9
Calculated MW	25258
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, By Heat Western blot, 0.1-0.5 □g/ml, Mouse
Subcellular Localization	Membrane ; Multi-pass membrane protein . Cell membrane ; Multi-pass membrane protein . Secreted, exosome .
Tissue Specificity	Expressed predominantly in the peripheral nervous system. .
Source	Eukaryota
Protein Name	CD9 antigen
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived mouse CD9 recombinant protein (Position: T110-I193). Mouse CD9 shares 77.4% and 86.9% amino acid (aa) sequence identity with human and rat CD9, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	Cd9 {ECO:0000303|PubMed:8236164, ECO:0000312|MGI:MGI:88348}
Function	Integral membrane protein associated with integrins, which regulates different processes, such as sperm-egg fusion, platelet activation and aggregation, and cell adhesion (PubMed:10634790, PubMed:10634791, PubMed:10700183, PubMed:14715942). 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 (PubMed:10634790, PubMed:10634791, PubMed:10700183, PubMed:21690351). In myoblasts, associates with CD81 and PTGFRN and inhibits myotube fusion during muscle regeneration (PubMed:23575678). In macrophages, associates with CD9 and beta-1 and beta-2 integrins, and prevents macrophage fusion into multinucleated giant cells specialized in ingesting complement-opsonized large particles. Also prevents the fusion between mononuclear cell progenitors into osteoclasts in charge of bone resorption (PubMed:12796480). Acts as a receptor for PSG17 (PubMed:11805154). Involved in platelet activation and aggregation (PubMed:14715942). Regulates paranodal junction formation (PubMed:14715942). Involved in cell adhesion, cell motility and tumor metastasis (By similarity). Also regulates integrin-dependent migration of macrophages, particularly relevant for inflammatory response in the lung (PubMed:18662991).
Cellular Location	Cell membrane; Multi-pass membrane protein. Membrane; Multi-pass membrane protein. Secreted, extracellular exosome. Note=Present at the cell surface of oocytes (PubMed:10518536, PubMed:10634791, PubMed:23213457). Accumulates in the adhesion area between the sperm and egg following interaction between IZUMO1 and its receptor IZUMO1R/JUNO (PubMed:25209248).
Tissue Location	Expressed predominantly in the peripheral nervous system (PubMed:14715942). Highly expressed in oocytes and blastocysts (at protein level) (PubMed:10518536, PubMed:10634790, PubMed:10634791, PubMed:23213457). Expression is also observed on follicular oocytes in the ovary, whereas no expression is found on follicular cells (at protein level) (PubMed:10518536, PubMed:10634790). Expressed in skeletal muscle mainly in endothelial cells of endomysial capillaries, in satellite cells and myoblasts (at protein level)

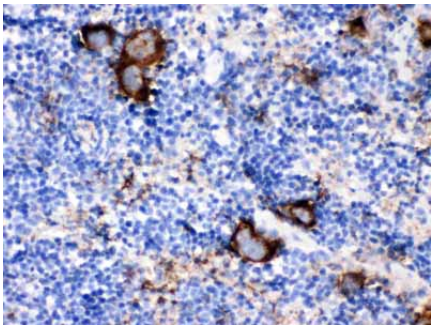
Background

CD9 antigen is a protein that in humans is encoded by the CD9 gene. CD9 is a cell surface glycoprotein that is known to complex with integrins and other transmembrane 4 superfamily proteins. It is found on the surface of exosomes. 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. This protein also seems to be a key part in the egg-sperm fusion during mammalian fertilization. While oocytes are ovulated, CD9-deficient oocytes are not properly fused with sperm upon fertilization. CD9 is located in the microvillar membrane of the oocytes and also appears to intervene in maintaining the normal shape of oocyte microvilli.

Images



Western blot analysis of CD9 expression in mouse kidney extract (lane 1). CD9 at 25KD was detected using rabbit anti- CD9 Antigen Affinity purified polyclonal antibody (Catalog # ABO12615) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



CD9 was detected in paraffin-embedded sections of mouse spleen tissues using rabbit anti- CD9 Antigen Affinity purified polyclonal antibody (Catalog # ABO12615) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .

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