

**Anti-CD9 Picoband Antibody**  
**Catalog # ABO12615****Specification**

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**Anti-CD9 Picoband Antibody - Product Information**

Application	<b>WB, IHC-P</b>
Primary Accession	<a href="#">P40240</a>
Host	<b>Rabbit</b>
Reactivity	<b>Mouse</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**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.

**Anti-CD9 Picoband Antibody - Additional Information**

**Gene ID** 12527

**Other Names**

CD9 antigen, CD9, Cd9

**Calculated MW**

25258 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Mouse<br>

**Subcellular Localization**

Membrane ; Multi-pass membrane protein . Cell membrane ; Multi-pass membrane protein .  
Secreted, exosome .

**Tissue Specificity**

Expressed predominantly in the peripheral nervous system. .

**Protein Name**

CD9 antigen

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**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.**

## Anti-CD9 Picoband Antibody - 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:<a href="http://www.uniprot.org/citations/10634790" target="\_blank">10634790</a>, PubMed:<a href="http://www.uniprot.org/citations/10634791" target="\_blank">10634791</a>, PubMed:<a href="http://www.uniprot.org/citations/10700183" target="\_blank">10700183</a>, PubMed:<a href="http://www.uniprot.org/citations/14715942" target="\_blank">14715942</a>). 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:<a href="http://www.uniprot.org/citations/10634790" target="\_blank">10634790</a>, PubMed:<a href="http://www.uniprot.org/citations/10634791" target="\_blank">10634791</a>, PubMed:<a href="http://www.uniprot.org/citations/10700183" target="\_blank">10700183</a>, PubMed:<a href="http://www.uniprot.org/citations/21690351" target="\_blank">21690351</a>). In myoblasts, associates with CD81 and PTGFRN and inhibits myotube fusion during muscle regeneration (PubMed:<a href="http://www.uniprot.org/citations/23575678" target="\_blank">23575678</a>). 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:<a href="http://www.uniprot.org/citations/12796480" target="\_blank">12796480</a>). Acts as a receptor for PSG17 (PubMed:<a href="http://www.uniprot.org/citations/11805154" target="\_blank">11805154</a>). Involved in platelet activation and aggregation (PubMed:<a href="http://www.uniprot.org/citations/14715942" target="\_blank">14715942</a>). Regulates paranodal junction formation (PubMed:<a href="http://www.uniprot.org/citations/14715942" target="\_blank">14715942</a>). 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:<a href="http://www.uniprot.org/citations/18662991" target="\_blank">18662991</a>).

### 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

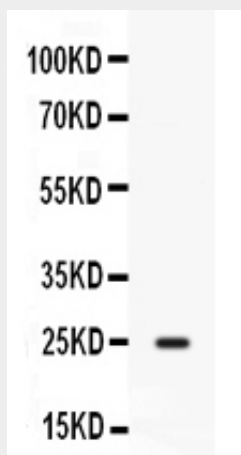
Expressed predominantly in the peripheral nervous system (PubMed:14715942). Highly expressed in oocytes and blastocysts (at protein level) (PubMed:10518536, PubMed:10634790, PubMed:10634791, PubMed:23213457). Expression is also observed on follicular oocytes in the ovary, whereas no expression is found 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)

## Anti-CD9 Picoband Antibody - Protocols

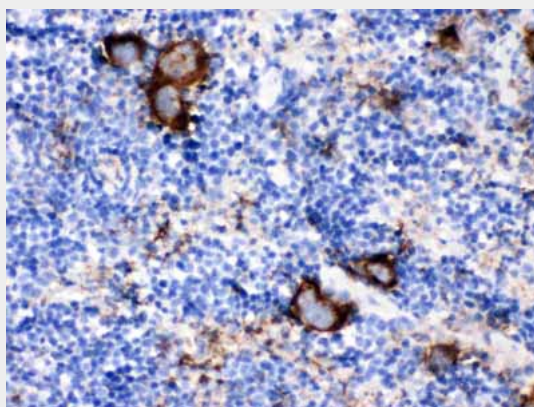
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-CD9 Picoband Antibody - 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 µg/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 µg/mL. The immunohistochemical section was developed using SABC method .

## Anti-CD9 Picoband Antibody - 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.