

ProteinFind® Anti-CD9 Mouse Monoclonal Antibody

Please read the manual carefully before use.

Cat. No. HE902

Storage: PBS (pH7.4), 0.02% Sodium Azide, 50% Glycerol; at -20°C for two years, avoid repeated freeze-thawing.

Description

CD9 belongs to the cell surface glycoprotein tetraspanin protein family. CD9 is expressed on the surface of developing B lymphocytes, platelets, monocytes, eosinophils, basophils, stimulated T lymphocytes, and neurons and glial cells of the peripheral nervous system ^[1]. In myoblasts, CD9 acts synergistically with CD81 and PTGFRN to inhibit muscle tube fusion during muscle regeneration. In macrophages, CD9 acts synergistically with CD81, β -1 and β -2 integrins to prevent macrophages from fusing into multinucleated giant cells ^[2]. CD9 also plays an important role in many cell physiological processes, including differentiation, adhesion and signal transduction, and it plays a key role in inhibiting cancer cell movement and metastasis ^[3].

Species Reactivity: Human (the results of species reactivity were determined according to WB experiment).

Clone Number: Trans-8H8

Antibody Isotype: Mouse IgG1

Immunogen

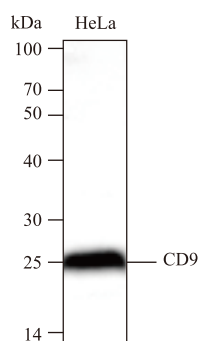
- Recombinant human CD9 partial extracellular domain (Ser 112-Ile 195)
- Entrez Gene ID: 928
- UniProt ID: P21926

Applicable Experiments and Dilution

- WB: 1:500-1:1000 dilution is recommended.
- IF: 1:100 dilution is recommended.
- FC: 1:100 dilution is recommended.

Positive Control Cell Line: HeLa cells

★ **Advanced Validation:** The antibody was validated by the relative expression of protein levels in different cell lines.

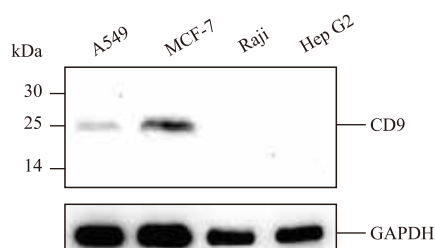


WB: ProteinFind® Anti-CD9 Mouse Monoclonal Antibody for detection of CD9 protein expression in HeLa cells.

Dilution ratio of primary antibody: 1:500

Predicted molecular weight: 25 kDa

Actual molecular weight: 25 kDa



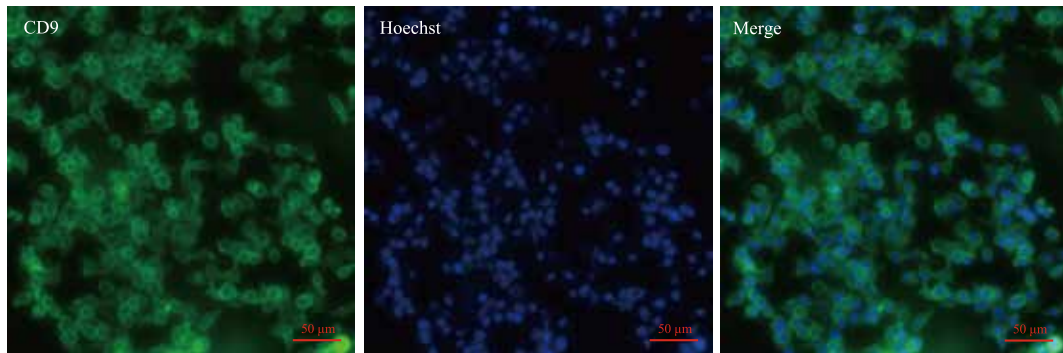
WB: ProteinFind® Anti-CD9 Mouse Monoclonal Antibody was used to detect the expression of CD9 protein in A549 (positive cells), MCF-7 (positive cells), Raji (negative cells) and Hep G2 (negative cells).

Dilution ratio of primary antibody: 1:500

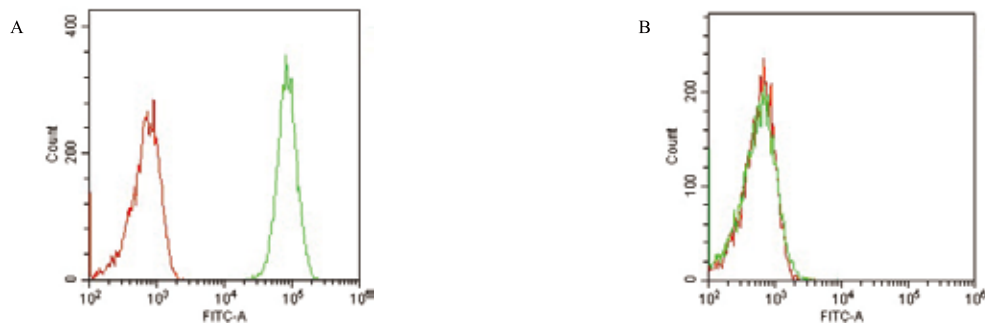
Predicted molecular weight: 25 kDa

Actual molecular weight: 25 kDa





IF: *ProteinFind*[®] Anti-CD9 Mouse Monoclonal Antibody (green) for detection of CD9 localization in HeLa cells.
Hoechst is used to label the nucleus (blue).
Dilution ratio of primary antibody: 1:100



FC: *ProteinFind*[®] Anti-CD9 Mouse Monoclonal Antibody (green) for FC detection in HeLa cells (positive) (A) and Raji cells(negative) (B).
The negative control was Mouse IgG1 Isotype Control (red).
Dilution ratio of primary antibody: 1:100

References

- [1] Cariappa A, Shoham T, Liu H, et al. The CD9 Tetraspanin Is Not Required for the Development of Peripheral B Cells or for Humoral Immunity [J]. The Journal of Immunology, 2005, 175(5): 2925-30.
- [2] Takeda Y, Tachibana I, Miyado K, et al. Tetraspanins CD9 and CD81 function to prevent the fusion of mononuclear phagocytes [J]. Journal of Cell Biology, 2003, 161(5): 945-56.
- [3] Masellis-Smith A, Shaw AR. CD9-regulated adhesion. Anti-CD9 monoclonal antibody induce pre-B cell adhesion to bone marrow fibroblasts through de novo recognition of fibronectin [J]. J Immunol, 1994, 152(6): 2768-77.

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