



Peninsula Laboratories, LLC

A Member of the Bachem Group

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Monoclonal Antibody to Human CD9 P24, MRP-1

Monoclonal antibody K41 identifies CD9, a member of the tetraspan or transmembrane 4 superfamily. The family members (CD9, CD63, CD37, Cd53, CD81, CD82, CD151) show a high degree of homology in their membrane-spanning domain. CD9 is the only member with N-linked sugar bound to the first extracellular segment. Tetraspans are expressed by many cell types and show a different subcellular distribution. CD9 is constitutively surface-expressed by platelets and pre-B cells and is present in the α -granules of platelets. The participation of different tetraspan members in signalling complexes on B and T cells have been described. Furthermore, association of CD9 with β 1 integrins has been found. Anti CD9 monoclonal antibodies induce homotypic pre-B cell aggregation and fibronectin receptor-mediated adherence of these cells to bone marrow fibroblasts. Recent observations suggest a role of CD9 in adhesion.

Product Number:	T-1207
Clone:	K41
Host species, isotype:	Mouse IgG1
Quantity:	200 μ g
Format:	Affinity purified, lyophilized Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.4mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 10mg/ml bovine serum albumin (BSA) as a stabilizer and 0.01% thimerosal as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.
Applications:	Tested for immunohistochemistry (IHC); has been described to work in FACS and Western Blots. Approximate working dilution for IHC: Frozen sections: 2-5 μ g/ml (1:80 - 1:200) Paraffin sections: 8 μ g/ml (1:50); pretreatment not necessary. Optimal dilutions should be determined by the end user. Suggested positive control: Human tonsil.
Immunogen:	Vero cells.
Antigen, epitope:	The antigen is CD9, the epitope has not been further characterized.
Antigen distribution:	Isolated cells: CD9 is mainly expressed on platelets, on early B-cells, and monocytes. Further reactivity could be seen with basophiles and eosinophiles. CD9 is used for the characterization of leukaemias and lymphomas. 90% of non-T



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acute lymphoblastic leukaemic cells, 50% of acute myeloid as well as chronic lymphoid leukaemias express the antigen.

Tissue sections: glomeruli, sinus histiocytes, germinal centre, brain white matter, nerves, skin, and vascular smooth muscles.

Specificity:

Human: CD9.

Other species: positive in monkey, dog, raccoon, cat, rabbit; negative in bovine, pig, hamster, mouse.

Selected references

Löffler, S., F. Lottspeich, F. Lanza, D.O. Azorsa, V. ter Meulen, J. Schneider-Schaulies: CD9, a tetraspan transmembrane protein, renders cells susceptible to canine distemper virus. *J. Virol* **71**: 42-49 (1997).

For in vitro research only. Caution: this product contains thimerosal, a poisonous and hazardous substance.