



Peninsula Laboratories, LLC

A Member of the Bachem Group

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Biotinylated Monoclonal Antibody To Human CD49e Integrin $\alpha 5$, VLA-5 α , Fibronectin Receptor

Monoclonal antibody X-6 is useful for the detection of the fibronectin receptor, or CD49e. CD49e is a component of an adhesion receptor heterodimer ($\alpha 5\beta 1$) to fibronectin and invasin. $\alpha 5\beta 1$ recognizes an Arg-Gly-Asp sequence in fibronectin. Binding of fibronectin through $\alpha 5\beta 1$ is important for cell survival and induces apoptosis, particularly in hemopoietic cells.

Product Number:	T-1044
Clone:	X-6
Host species, isotype:	Mouse IgG1
Quantity:	200 μ g
Format:	Affinity purified, biotinylated, 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. Approximate working dilution for IHC: Frozen sections: 4 μ g/ml (1:100) Paraffin sections: not tested. Optimal dilutions should be determined by the end user. Suggested positive control: Human tonsil.
Immunogen:	Human monocytes.
Antigen, epitope:	The antigen is a 154-180kDa protein as determined by immunoprecipitation. The epitope has not been further characterized.



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Antigen distribution:

Isolated cells: Granulocytes, monocytes; positive on blood monocyte-derived macrophages days 0-28. Dull staining with 95% cord blood CD34⁺ cells, weak reaction on resting neutrophils. Staining increases with maturation of granulocytes. Treatment with fMLP, TNF, GM-CSF and temperature causes positive shift with granulocytes and monocytes. PMA treatment of granulocytes leads to a decrease in the number of positive cells. Positive with cell lines U937, DH39 & MEP, HL-60, NB4, HMC-1.

Tissue sections: X-6 is positive on lining cells in different infiltrations and endothelial cells in the synovial membrane of rheumatoid arthritis patients. The staining pattern is similar to CD34 in these patients.

Specificity:

Human: granulocytes, monocytes, platelets.

Other species: not tested.

Selected references

Shaw, S. et al. Leukocyte Typing V: White Cell Differentiation Antigens, Oxford University Press (1994) Ed. Schlossmann, S. et al. Abstracts M031, M034, M060, M061, M062, M066, M067, M081, M093, M102, M111, M112, M127, M133, M145, M151 (X-6 Workshop Codes = M50, BP263).

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