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Monoclonal Antibody to Human CD106

Marker For Vascular Cell Adhesion Molecule VCAM-1

Monoclonal antibody 1299.27-1 recognizes VCAM-1 (vascular cell adhesion molecule 1) expressed by endothelial cells in tissue sections and in umbilical vein endothelial cells (HUVECs) stimulated by TNF-α or Interleukin (IL)-1. VCAM-1 is known to be a receptor for the integrin α4β1, and to interact weakly with the closely related integrin α4β7. The primary leucocytes that interact with CD106 are lymphocytes, monocytes, basophils and eosinophils. Neutrophils lack the α4 integrin, which explains some of the selective adhesion and recruitment characteristics of the different leucocytes. VCAM-1 is expressed in a wide range of inflammatory conditions, including rejecting cardiac transplant tissue, atherosclerotic lesions, multiple sclerosis, arthritic synovium and inflammatory reactions in the skin.

TECHNICAL AND ANALYTICAL CHARACTERISTICS

Product Number:	T-1126 (Lot 01PO9503)
Clone:	1299.27-1
Host species, isotype:	Mouse IgG2a
Quantity:	200µg
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 from date of purchase. Stock solution and aliquots thereof: 1 year at -20°C. Avoid freeze-thaw cycles.
Applications:	Tested for immunohistochemistry (IHC); has been described to work in ELISA and FACS. **Approximate working dilution for IHC:** Frozen sections: 0.5µg/ml 1:800 Paraffin sections: not tested Optimal dilutions should be determined by the end user Suggested positive control: Human tonsil Please see **www.bma.ch** for protocols and general information
Immunogen:	n.a.
Protein database:	human-P19320

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Phone: +41 61 811 6222, Email: info@bma.ch, www.bma.ch

Antigen, epitope:	The antigen is CD106. VCAM-1 is a protein of 110kD molecular weight which belongs to the immunoglobulin superfamily of proteins. Its corresponding ligand on mononuclear cells is the VLA-4 molecule. VCAM-1 binds to a different epitope of VLA-4 than fibronectin.
Antigen distribution:	**Tissue sections:** The antibody reacts with IL-1 stimulated human umbilical vein endothelial cells. Maximum expression can be observed after 6 hours as detected by ELISA on these cells.
Specificity:	**Human**: CD106, VCAM-1
	Other species: not tested

Selected references

Schnyder, B., S. Lugli, N. Feng, H. Etter, R.A. Lutz, B. Ryffel, K. Sugamura, H. Wunderli-Allensbach, R. Moser. Interleukin-4 (IL-4) and IL-13 bind to a shared heterodimeric complex on endothelial cells mediating vascular cell adhesion molecule-1 induction in the absence of the common γ chain. Blood: 87: 4286-4295 (1996).

Springer, T. et al. Nature 346: 425 (1990).

For in vitro research only. This product contains Thimerosal as a preservative.

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