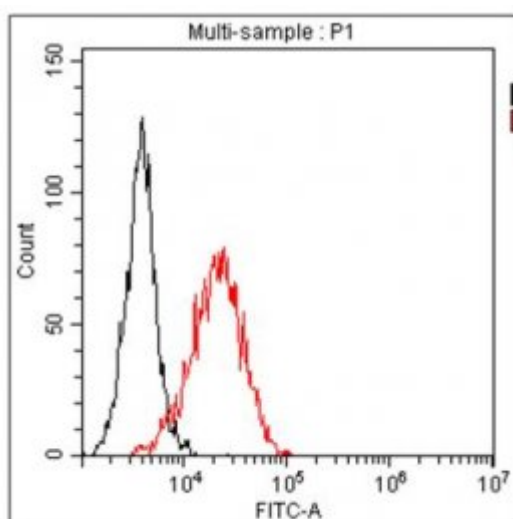


## Anti-Human CD106 Unconjugated

### PRODUCT SPECIFICATIONS

<b>Catalogue N°</b>	853.823.020 - 200 tests / 2ml
<b>Target species</b>	Human
<b>Specificity</b>	Recognises the Vascular Cellular Adhesion Molecule-1 (VCAM-1), a 110 kDa protein
<b>Clone</b>	B-S6
<b>Application</b>	Flow Cytometry
<b>Hybridoma</b>	Myeloma X63/AG.8653 x Balb/c spleen cells
<b>Immunisation</b>	Activated human umbilical vein endothelial cells
<b>Quantity</b>	200 Tests / 2ml (Discovery Size also available please enquire)
<b>Isotype</b>	Mouse IgG1 Kappa light chain
<b>Format</b>	Phosphate-buffered saline with 1% BSA and 0.09% sodium azide
<b>Storage</b>	Stable at +2-8°C for 12 months. For longer storage freeze aliquots.
<b>Working Dilution</b>	Use 10 µl to label 10 <sup>6</sup> cells or 100 µl of whole blood
<b>Synonym</b>	VCAM-1



A typical staining pattern obtained with the clone B-S6 (red line) on T-lymphoma cell line HUT78 compared to the isotype control (black line).

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## **BACKGROUND**

The vascular cell adhesion protein 1, also known as vascular cell adhesion molecule 1 (VCAM-1) or differentiation group 106 (CD106), is a protein that in humans is coded by the VCAM1 gene. VCAM-1 functions as a cell adhesion molecule.

The VCAM-1 protein induces the adhesion of lymphocytes, monocytes, eosinophils and basophils to the vascular endothelium. It also plays a role in signal transduction of leukocyte-endothelial cells and may play a role in the development of atherosclerosis and rheumatoid arthritis.

Positive regulation of VCAM-1 in endothelial cells by cytokines results from increased transcription of the gene (eg, in response to tumor necrosis factor alpha (TNF- $\alpha$ ) and interleukin-1 (IL-1 )) and the stabilization of the messenger RNA. (mRNA) (e.g., interleukin-4 (IL-4)). The promoter region of the VCAM-1 gene contains functional tandem sites NF-KB (nuclear factor-kappa B). The sustained expression of VCAM-1 lasts more than 24 hours.

Mainly, the VCAM-1 protein is an endothelial ligand of the VLA-4 (Very Late Antigen-4 or  $\alpha 4\beta 1$  integrin) of the  $\beta 1$  integrin subfamily. VCAM-1 expression has also been observed in other cell types (eg, smooth muscle cells). It has also been shown to interact with EZR and Moesin.

CD106 also exists on the surface of certain sub-populations of mesenchymal stem cells (MSCs).