

## Product datasheet for **AM26158BT-N**

### VCAM1 Mouse Monoclonal Antibody [Clone ID: 1G11B1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	1G11B1
Applications:	FN, IF, IHC, IP
Recommended Dilution:	Immunohistochemistry on frozen sections. Flow cytometry. Functional assays. Immunofluorescence. Immunoprecipitation. The typical starting working dilution is 1:50. Positive control: Activated endothelial cells.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length protein
Specificity:	This antibody recognizes vascular cell adhesion molecule-1 (VCAM-1).
Formulation:	PBS Label: Biotin State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Biotin
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Database Link:	<a href="#">Entrez Gene 7412 Human P19320</a>



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**Background:**

VCAM-1 is a member of the immunoglobulin superfamily of adhesion molecules, which includes ICAMs, PECAM-s and MADCAM, and is involved in leukocyte-endothelial cell interactions. The immunoglobulin superfamily is a type I transmembrane protein characterized by extracellular immunoglobulin domains, a transmembrane region and a cytoplasmic tail. They are essential for the development of the embryo and for immune and inflammatory responses. These transmembrane glycoproteins mediate cell interaction with, and adhesion to, other cells and the extracellular matrix. VCAM-1 contains six immunoglobulin domains of the H-type and interacts with VLA-4 expressed on leukocytes. Multiple adhesion molecules play a role in leukocyte recruitment. The process of migration of a leukocyte through the vascular endothelium consists of the following steps: leukocyte-endothelium interaction (first tethering and rolling and then adhesion) and transendothelial migration. VCAM-1 is almost not expressed under physiological conditions. However, under appropriate pro-inflammatory conditions where the endothelium is exposed to inflammatory cytokines such as tumour necrosis factor- $\alpha$  or IL-1 $\beta$  and becomes activated, VCAM-1 gene expression is rapidly elevated by the vascular endothelium. There is also a soluble form of VCAM-1 which is angiogenic and chemotactic for endothelial cells. sVCAM-1 is up-regulated in several disease states (eg, myocardial infarction, type 2 diabetes mellitus, primary antiphospholipid syndrome, and rheumatoid arthritis).

**Synonyms:**

V-CAM 1, INCAM-100, L1CAM, VCAM-1