

10-3558: Monoclonal Antibody to human VCAM-1(Discontinued)

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| Clonality : | Monoclonal |
| Clone Name : | 1G11B1 |
| Application : | FACS |
| Reactivity : | Human |
| Gene : | VCAM1 |
| Gene ID : | 7412 |
| Uniprot ID : | P19320 |
| Alternative Name : | INCAM-100, CD106 |
| Isotype : | Mouse IgG1 |
| Immunogen Information : | Full length protein |

Description

The monoclonal antibody 1G11B1 recognizes vascular cell adhesion molecule-1 (VCAM-1). 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-1b 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).

Product Info

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| Amount : | 1(Discontinued) / 500 µg |
| Content : | 0.5 mg 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin |
| Storage condition : | Product should be stored at 4 °C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label. |

Application Note

IHC-F: Cryostatic sections were fixed in acetone, and incubated with mAb at 10 µg/ml in PBS/0.1% tween20 FACS : 1 µg mAb per 1x10⁵ cells Functional Studies: Stimulated EC were preincubated for 30' at 37 °C with mAb and then used in adhesion assay with T-cells Immuno Precipitation: precleared EC lysates were immunoprecipitated with mAb and analyzed by 7.5% SDS-PAGE under reducing conditions. For immunohistochemistry, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.