

Product datasheet MON6017

MONOSAN[®]

Mouse anti-VCAM-1, clone 1G11B1 (Monoclonal)

Clone no. 1G11B1

MONOSAN

Product name	Mouse anti-VCAM-1, clone 1G11B1 (Monoclonal)
Host	Mouse
Applications	IHC-fr,FC,FUNC,IF,IP
Species reactivity	human
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	1G11B1
Size	1 ml
Concentration	100 ug/ ml
Format	-
Storage buffer	PBS with 0.1% BSA and 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

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- α or IL-1 β 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).

References

1. Thornhill; M et al. J Immunology 1991; 146: 592
2. Van der Vieren, M et al. J Immunol 1999, 163:1984
3. Dienst; A et al. J Natl Cancer Inst 2005; 97 :733
4. Wijbrandt C et al. Ann Rheum Dis 2008; 67:1139
5. Roussel L et al. J immunol 210; 184; 4531

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