Labmix24 GmbH
Kesseldorfer Rott 24
46499 Hamminkeln
Germany

Tel: +49 (0) 2852 96064 00
Fax: +49 (0) 2852 96064 24
Web: www.labmix24.com
E-Mail: info@labmix24.com

Anti-CD31 (PECAM-1) Antibody, clone MBC 78.1 clone MBC 78.1, from mouse

Art. ID	SAF-MABF2032
Unit	EA
Deliverydetails	No Dangerous Good

Description

Platelet endothelial cell adhesion molecule (UniProt: P16284, also known as PECAM-1, EndoCAM. GPIIA', PECA1, CD31) is encoded by the PECAM1 gene (Gene ID: 5175) in human. PECAM-1 is a single-pass type I membrane protein that is synthesized with a signal peptide (aa 1-27) that is subsequently cleaved to generate the mature protein with a large extracellular region (aa 28-601) that contains six Ig-like C2-type domains, followed by a transmembrane segment (aa 602-620) and a cytoplasmic tail (aa. 621-738 of isoform Long) that plays an essential role in PECAM-1-mediated cellular signaling. PECAM-1 is essential for leukocyte transendothelial migration (TEM) under most inflammatory conditions. It is expressed on platelets and leukocytes and is primarily concentrated at the borders between endothelial cells. Six isoforms of PECAM-1 have been described that are produced by alternative splicing. Isoform Long predominates in all tissues examined, whereas Delta 12 isoform is detected only in trachea and isoform Delta14-15 are only detected in lung tissue. Isoform Delta14 is detected in all tissues examined with the strongest expression in heart. Isoform Delta15 is expressed in brain, testis, ovary, cell surface of platelets, human umbilical vein endothelial cells (HUVECs), Jurkat T-cell leukemia, human erythroleukemia and U-937 histiocytic lymphoma cell lines. Tyrosine 690 residue plays a critical role in TEM and is required for efficient trafficking of PECAM-1 to and from the lateral border recycling compartment (LBRC) and is also required for the LBRC membrane to be targeted around migrating leukocytes. PECAM-1 also prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes.