Mouse VCAM-1/CD106 PE-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 112734

Catalog Number: FAB6432P
100 Tests

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects recombinant mouse (rm) VCAM-1 in Western blots and ELISAs. In sandwich immunoassays, no cross-reactivity or interference was observed with recombinant human VCAM-1, rmICAM-1, rmE-Selectin, rmL-Selectin or rmP-Selectin.
Source	Monoclonal Rat IgG_{2A} Clone # 112734
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse VCAM-1/CD106 Phe25-Glu698 (predicted) Accession # P29533
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

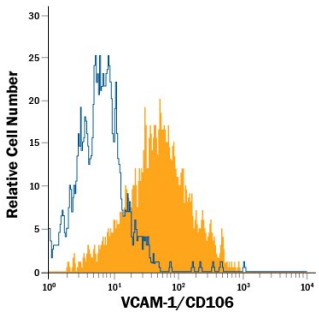
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of VCAM-1/CD106 in bEnd.3 Mouse Cell Line by Flow Cytometry. bEnd.3 mouse endothelioma cell line was stained with Rat Anti-Mouse VCAM-1/CD106 PE-conjugated Monoclonal Antibody (Catalog # FAB6432P, filled histogram) or isotype control antibody (Catalog # IC006P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

VCAM-1 (CD106), an 85-95 kDa member of the immunoglobulin superfamily, is a type I transmembrane glycoprotein expressed by activated endothelial cells and multiple cell types, including osteoblasts, B cells plus plasma cells, select fibroblasts, Kupffer cells, sensory and autonomic neurons, visceral smooth muscle, simple squamous type I alveolar epithelium, and $CD133^+$ $CD24^+$ renal stem cells. Its expression is typically induced by IL-1β, IL-4, TNF-α and IFN-γ. VCAM-1 binds to leukocyte integrins VLA-4, LPAM-1 and CD11c. Over amino acids (aa) 25-698 (the ECD), mouse VCAM-1 shares approximately 75% and 86% aa sequence identity with human and rat VCAM-1, respectively. During the inflammatory adhesion mechanism, activated integrins halt rolling leukocytes and attach them firmly to the vascular endothelium. They do this by binding to their ligands, for example VCAM-1, on endothelium. The VCAM-1: VLA-4 interaction is thought to be involved in the extravasation of white blood cells through the blood vessel wall to sites of inflammation. ELISA techniques have also shown that detectable levels of soluble VCAM-1 are present in the biological fluids of apparently normal individuals. Within the context, a number of studies have reported that levels of VCAM-1 may be elevated or lowered in subjects with a variety of pathological conditions.

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