

PECAM-1 (MEC7.46): sc-52714

BACKGROUND

Cell adhesion molecules are a family of closely related cell surface glycoproteins involved in cell-cell interactions during growth and are thought to play an important role in embryogenesis and development. Neuronal cell adhesion molecule (NCAM) expression is observed in a variety of human tumors including neuroblastomas, rhabdomyosarcomas, Wilms' tumors, Ewing's sarcomas and some primitive myeloid malignancies. The intracellular adhesion molecule-1 (ICAM-1), also referred to as CD54, is an integral membrane protein of the immunoglobulin superfamily and recognizes the $\beta 2/\alpha 1$ and $\beta 2/\alpha M$ integrins. PECAM-1 (platelet/endothelial cell adhesion molecule-1), also referred to as CD31, is a glycoprotein expressed on the cell surfaces of monocytes, neutrophils, platelets and a subpopulation of T cells. VCAM-1 (vascular cell adhesion molecule-1) was first identified as an adhesion molecule induced on human endothelial cells by inflammatory cytokines such as IL-1, tumor necrosis factor (TNF) and lipopolysaccharide (LPS). The KALIG gene encodes a nerve cell adhesion molecule (NCAM)-like protein and is deleted in 66% of patients with Kallmann's syndrome, anosmia with secondary hypogonadism.

REFERENCES

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4. Edelman, G.M., et al. 1995. Developmental control of NCAM expression by HOX and PAX gene products. *Phil. Trans. Royal Soc. London Biol. Sci.* 349: 305-312.
5. Dominici, C., et al. 1996. Bone marrow micrometastases in a patient with localized Wilm's tumor. *Med. Ped. Oncol.* 26: 125-128.
6. Briskin, M.J., et al. 1996. Structural requirements for mucosal vascular addressin binding to its lymphocyte receptor $\alpha 4\beta 7$. Common themes among integrin-Ig family interactions. *J. Immunol.* 156: 719-726.
7. Mayet, W.J., et al. 1996. Antibodies to proteinase 3 mediate expression of vascular cell adhesion molecule-1 (VCAM-1). *Clin. Exp. Immunol.* 103: 259-267.
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CHROMOSOMAL LOCATION

Genetic locus: Pecam1 (mouse) mapping to 11 E1.

SOURCE

PECAM-1 (MEC7.46) is a rat monoclonal antibody raised against polyoma middle T transformed EC line of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PECAM-1 (MEC7.46) is available conjugated fluorescein (sc-52714 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

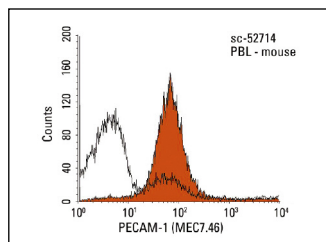
APPLICATIONS

PECAM-1 (MEC7.46) is recommended for detection of mouse PECAM-1 expressed on the surface of endothelial cells of mouse origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for PECAM-1 siRNA (m): sc-29446, PECAM-1 shRNA Plasmid (m): sc-29446-SH and PECAM-1 shRNA (m) Lentiviral Particles: sc-29446-V.

Molecular Weight of PECAM-1: 130 kDa.

DATA



PECAM-1 (MEC7.46): sc-52714. Indirect FCM analysis of mouse peripheral blood leukocytes stained with PECAM-1 (MEC7.46), followed by PE-conjugated goat anti-rat IgG: sc-3740. Black line histogram represents the isotype control, normal rat IgG₁: sc-2827.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

CONJUGATES

See **PECAM-1 (H-3): sc-376764** for PECAM-1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.