

PECAM-1 (TLD-4E8): sc-53526

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

1. Patel, K., et al. 1993. Vase mini-exon usage by NCAM is not restricted to tumours of neuroectodermal origin. *Int. J. Cancer* 54: 772-777.
2. Cowen, M.A., et al. 1993. The Kallmann's syndrome variant (KSV) model of the schizophrenias. *Schizophr. Res.* 9: 1-10.
3. Buck, C.A., et al. 1994. Cell adhesion receptors and early mammalian heart development: an overview. *C. R. Acad. Sci. III, Sci. Vie* 316: 838-859.
4. Delisser, H.M., et al. 1994. Platelet endothelial cell adhesion molecule (CD31). *Curr. Top. Microbiol. Immunol.* 184: 37-45.

CHROMOSOMAL LOCATION

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

SOURCE

PECAM-1 (TLD-4E8) is a mouse monoclonal antibody raised against activated microglial cells of Lewis rat origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PECAM-1 (TLD-4E8) is available conjugated to either phycoerythrin (sc-53526 PE) or fluorescein (sc-53526 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

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.

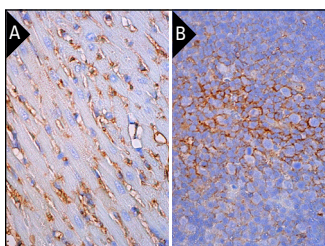
APPLICATIONS

PECAM-1 (TLD-4E8) is recommended for detection of PECAM-1 of mouse and rat origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (r): sc-270626, PECAM-1 shRNA Plasmid (m): sc-29446-SH, PECAM-1 shRNA Plasmid (r): sc-270626-SH, PECAM-1 shRNA (m) Lentiviral Particles: sc-29446-V and PECAM-1 shRNA (r) Lentiviral Particles: sc-270626-V.

Molecular Weight of PECAM-1: 130 kDa.

DATA



PECAM-1 (TLD-4E8): sc-53526. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat heart muscle tissue showing membrane staining of endothelial cells (A) and rat spleen tissue showing membrane staining of cells in white pulp (B).

SELECT PRODUCT CITATIONS

1. Nie, C., et al. 2011. Locally administered adipose-derived stem cells accelerate wound healing through differentiation and vasculogenesis. *Cell Transplant.* 20: 205-216.
2. Nie, C., et al. 2012. Targeted delivery of adipose-derived stem cells via acellular dermal matrix enhances wound repair in diabetic rats. *J. Tissue Eng. Regen. Med.* 9: 224-235.
3. Marzi, I., et al. 2013. The involvement of a Nanog, Klf4 and c-Myc transcriptional circuitry in the intertwining between neoplastic progression and reprogramming. *Cell Cycle* 12: 353-364.
4. Shi, R., et al. 2016. Localization of human adipose-derived stem cells and their effect in repair of diabetic foot ulcers in rats. *Stem Cell Res. Ther.* 7: 155.
5. Zhou, X., et al. 2019. Multiple injections of autologous adipose-derived stem cells accelerate the burn wound healing process and promote blood vessel regeneration in a rat model. *Stem Cells Dev.* 28: 1463-1472.



See **PECAM-1 (H-3): sc-376764** for PECAM-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.