

PECAM-1 (3H1217): sc-71873

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.

CHROMOSOMAL LOCATION

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

SOURCE

PECAM-1 (3H1217) 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 (3H1217) is available conjugated to either phycoerythrin (sc-71873 PE) or fluorescein (sc-71873 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

PECAM-1 (3H1217) 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.

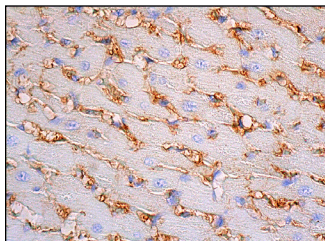
STORAGE

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.

DATA



PECAM-1 (3H1217): 71873. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat heart muscle tissue showing membrane staining of endothelial cells.

SELECT PRODUCT CITATIONS

- Hu, H., et al. 2014. Targeted NGF siRNA delivery attenuates sympathetic nerve sprouting and deteriorates cardiac dysfunction in rats with myocardial infarction. *PLoS ONE* 9: e95106.
- Chen, Y., et al. 2015. Combining radiation with autophagy inhibition enhances suppression of tumor growth and angiogenesis in esophageal cancer. *Mol. Med. Rep.* 12: 1645-1652.
- Zhang, Y.Q., et al. 2016. Hepatocyte growth factor inhibits hypoxia/reoxygenation-induced activation of xanthine oxidase in endothelial cells through the JAK2 signaling pathway. *Int. J. Mol. Med.* 38: 1055-1062.
- Zhu, M.L., et al. 2017. Berberine promotes ischemia-induced angiogenesis in mice heart via upregulation of microRNA-29b. *Clin. Exp. Hypertens.* 39: 672-679.
- Jing, X., et al. 2018. Icaritin doped bioactive glasses seeded with rat adipose-derived stem cells to promote bone repair via enhanced osteogenic and angiogenic activities. *Life Sci.* 202: 52-60.
- Sun, Z., et al. 2020. Myocardium-targeted transplantation of PHD2 shRNA-modified bone mesenchymal stem cells through ultrasound-targeted microbubble destruction protects the heart from acute myocardial infarction. *Theranostics* 10: 4967-4982.
- Jing, X., et al. 2020. Desferoxamine protects against glucocorticoid-induced osteonecrosis of the femoral head via activating HIF-1 α expression. *J. Cell. Physiol.* 235: 9864-9875.
- Shen, Z., et al. 2020. Total flavonoids of rhizoma drynariae enhances angiogenic-osteogenic coupling during distraction osteogenesis by promoting type H vessel formation through PDGF-BB/PDGFR- β instead of HIF-1 α /VEGF axis. *Front. Pharmacol.* 11: 503524.

CONJUGATES

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.