

# PECAM-1 (M-20): sc-1506



The Power to Question

## 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, Wilm's 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 B2 $\alpha$ 1 and B2 $\alpha$ 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 (human) mapping to 17q23.3; Pecam1 (mouse) mapping to 11 E1.

## SOURCE

PECAM-1 (M-20) is available as either goat (sc-1506) or rabbit (sc-1506-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of PECAM-1 of mouse origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1506 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1506 AC, 500  $\mu$ g/0.25 ml agarose in 1 ml.

## APPLICATIONS

PECAM-1 (M-20) is recommended for detection of PECAM-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

PECAM-1 (M-20) is also recommended for detection of PECAM-1 in additional species, including porcine.

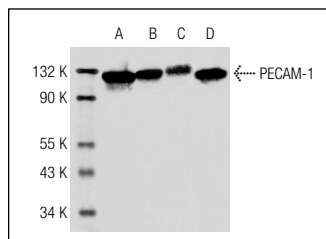
Suitable for use as control antibody for PECAM-1 siRNA (h): sc-29445, PECAM-1 siRNA (m): sc-29446, PECAM-1 shRNA Plasmid (h): sc-29445-SH, PECAM-1 shRNA Plasmid (m): sc-29446-SH, PECAM-1 shRNA (h) Lentiviral Particles: sc-29445-V and PECAM-1 shRNA (m) Lentiviral Particles: sc-29446-V.

Molecular Weight of PECAM-1: 130 kDa.

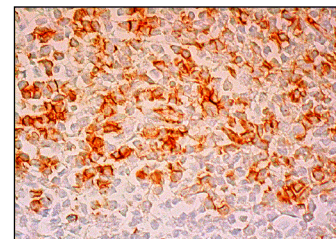
## STORAGE

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

## DATA



PECAM-1 (M-20): sc-1506. Western blot analysis of PECAM-1 expression in Jurkat (A), CTLL-2 (B), WEHI-3 (C) and human platelet (D) whole cell lysates.



PECAM-1 (M-20): sc-1506. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing membrane and cytoplasmic staining of subset of non-germinal center cells.

## SELECT PRODUCT CITATIONS

- Hajra, L., et al. 2000. The NF $\kappa$ B signal transduction pathway in aortic endothelial cells is primed for activation in regions predisposed to atherosclerotic lesion formation. *Proc. Natl. Acad. Sci. USA* 97: 9052-9057.
- Chiu, I.M., et al. 2000. Tumorigenesis in transgenic mice in which the SV40 T antigen is driven by the brain-specific FGF1 promoter. *Oncogene* 19: 6229-6239.
- Antczak, M., et al. 2000. The vascular character of ovarian follicular granulosa cells: phenotypic and functional evidence for an endothelial-like cell population. *Hum. Reprod.* 15: 2306-2318.
- Teng, L., et al. 2012. Divergent effects of p47(phox) phosphorylation at S303-4 or S379 on tumor necrosis factor- $\alpha$  signaling via TRAF4 and MAPK in endothelial cells. *Arterioscler. Thromb. Vasc. Biol.* 32: 1488-1496.
- Larráyoz, I.M., et al. 2012. Molecular effects of doxycycline treatment on pterygium as revealed by massive transcriptome sequencing. *PLoS ONE* 7: e39359.
- Herot, S., et al. 2012. Nanobody-coupled microbubbles as novel molecular tracer. *J. Control. Release* 158: 346-353.
- Juin, A., et al. 2012. Physiological type I collagen organization induces the formation of a novel class of linear invadosomes. *Mol. Biol. Cell* 23: 297-309.

## RESEARCH USE

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

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Satisfaction  
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Try **PECAM-1 (H-3): sc-376764** or **PECAM-1 (E-4): sc-365804**, our highly recommended monoclonal alternatives to PECAM-1 (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PECAM-1 (H-3): sc-376764**.