

# PECAM-1 (2Q685): sc-71871

## 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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- Cowen, M.A., et al. 1993. The Kallmann's syndrome variant (KSV) model of the schizophrenias. *Schizophr. Res.* 9: 1-10.
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- 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.
- Berman, M.E., et al. 1996. Roles of platelet/endothelial cell adhesion molecule-1 (PECAM-1, CD31) in natural killer cell transendothelial migration and  $\beta 2$  Integrin activation. *J. Immunol.* 156: 1515-1524.

## CHROMOSOMAL LOCATION

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

## SOURCE

PECAM-1 (2Q685) is a rat monoclonal antibody raised against leukocyte cell line of mouse origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for Blocking of cell adhesion, sc-71871 L, 100  $\mu$ g/0.1 ml.

PECAM-1 (2Q685) is available conjugated either phycoerythrin (sc-71871 PE, 100 tests in 2 ml) or fluorescein (sc-71871 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

## APPLICATIONS

PECAM-1 (2Q685) is recommended for detection of PECAM-1 of mouse origin by 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 flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> 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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use goat anti-rat IgG-FITC: sc-2011 (dilution range: 1:100-1:400) or goat anti-rat IgG-TR: sc-2782 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Trompouki, E., et al. 2009. Truncation of the catalytic domain of the cylindromatosis tumor suppressor impairs lung maturation. *Neoplasia* 11: 469-476.
- Li, S., et al. 2015. Conditionally replicating oncolytic adenoviral vector expressing arretsen and tumor necrosis factor-related apoptosis-inducing ligand experimentally suppresses lung carcinoma progression. *Mol. Med. Rep.* 12: 2068-2074.

## 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.



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