

# PECAM-1 (158-2B3): sc-65260

## 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 (human) mapping to 17q23.3.

## SOURCE

PECAM-1 (158-2B3) is a mouse monoclonal antibody raised against stimulated leukocytes of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PECAM-1 (158-2B3) is available conjugated to agarose (sc-65260 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65260 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65260 PE), fluorescein (sc-65260 FITC), Alexa Fluor<sup>®</sup> 488 (sc-65260 AF488), Alexa Fluor<sup>®</sup> 546 (sc-65260 AF546), Alexa Fluor<sup>®</sup> 594 (sc-65260 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-65260 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-65260 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-65260 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

PECAM-1 (158-2B3) is recommended for detection of PECAM-1 of 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 flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

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

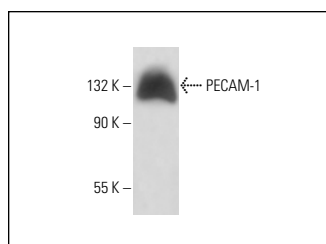
Molecular Weight of PECAM-1: 130 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or CCRF-CEM cell lysate: sc-2225.

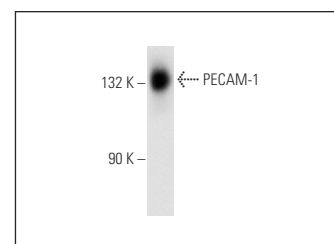
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



PECAM-1 (158-2B3): sc-65260. Western blot analysis of PECAM-1 expression in human PBL whole cell lysate.



PECAM-1 (158-2B3): sc-65260. Western blot analysis of PECAM-1 expression in Jurkat whole cell lysate.

## SELECT PRODUCT CITATIONS

- Tang, R.N., et al. 2011. Effects of Angiotensin II receptor blocker on myocardial endothelial-to-mesenchymal transition in diabetic rats. *Int. J. Cardiol.* 162: 92-99.
- Tang, R., et al. 2012. High glucose mediates endothelial-to-chondrocyte transition in human aortic endothelial cells. *Cardiovasc. Diabetol.* 11: 113.
- Fearnley, G.W., et al. 2016. VEGF-A isoforms program differential VEGFR2 signal transduction, trafficking and proteolysis. *Biol. Open* 5: 571-583.
- Ding, X., et al. 2018. HGF derived from cancer-associated fibroblasts promotes vascularization in gastric cancer via PI3K/Akt and ERK1/2 signaling. *Oncol. Rep.* 40: 1185-1195.
- Fearnley, G.W., et al. 2019. Tpl2 is required for VEGF-A-stimulated signal transduction and endothelial cell function. *Biol. Open* 8: bio034215.

## 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](http://www.scbt.com) for detailed protocols and support products.