

# VCAM-1 (H-276): sc-8304



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: VCAM1 (human) mapping to 1p21.2; Vcam1 (mouse) mapping to 3 G1.

## SOURCE

VCAM-1 (H-276) is a rabbit polyclonal antibody raised against amino acids 25-300 mapping at the N-terminus of VCAM-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

VCAM-1 (H-276) is recommended for detection of VCAM-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VCAM-1 siRNA (h): sc-29519, VCAM-1 siRNA (m): sc-36810, VCAM-1 shRNA Plasmid (h): sc-29519-SH, VCAM-1 shRNA Plasmid (m): sc-36810-SH, VCAM-1 shRNA (h) Lentiviral Particles: sc-29519-V and VCAM-1 shRNA (m) Lentiviral Particles: sc-36810-V.

Molecular Weight of VCAM-1: 110 kDa.

Positive Controls: VCAM-1 (h): 293T Lysate: sc-178116, L8 cell lysate: sc-3807 or SW480 cell lysate: sc-2219.

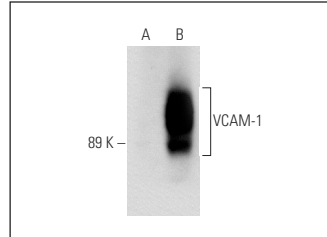
## STORAGE

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

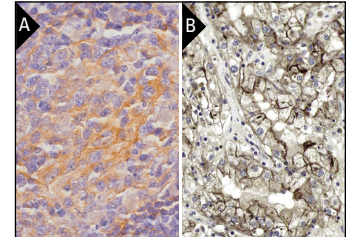
## RESEARCH USE

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

## DATA



VCAM-1 (H-276): sc-8304. Western blot analysis of VCAM-1 expression in non-transfected: sc-117752 (A) and human VCAM-1 transfected: sc-178116 (B) 293T whole cell lysates.



VCAM-1 (H-276): sc-8304. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human renal cancer tissue showing membrane staining of tumor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

## SELECT PRODUCT CITATIONS

- Weerth, S.H., et al. 2003. Complement C5 in experimental autoimmune encephalomyelitis (EAE) facilitates remyelination and prevents gliosis. *Am. J. Pathol.* 163: 1069-1080.
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- Liang, C.J., et al. 2011. Viscolin reduces VCAM-1 expression in TNF- $\alpha$ -treated endothelial cells via the JNK/NF $\kappa$ B and ROS pathway. *Free Radic. Biol. Med.* 51: 1337-1346.
- Zarnescu, O., et al. 2011. Co-localization of PCNA, VCAM-1 and caspase-3 with nestin in xenografts derived from human anaplastic astrocytoma and glioblastoma multiforme tumor spheres. *Micron* 42: 793-800.
- Silva, A.C., et al. 2012. Exercise inhibits allergic lung inflammation. *Int. J. Sports Med.* 33: 402-409.
- Li, H., et al. 2012. ROCK inhibitor fasudil attenuated high glucose-induced MCP-1 and VCAM-1 expression and monocyte-endothelial cell adhesion. *Cardiovasc. Diabetol.* 11: 65.
- Arakawa, Y., et al. 2012. Effects of pegylated interferon  $\alpha$ 2b on metastasis of hepatocellular carcinoma. *J. Surg. Res.* 172: 95-101.

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Try **VCAM-1 (E-10): sc-13160** or **VCAM-1 (M/K-2): sc-18864**, our highly recommended monoclonal alternatives to VCAM-1 (H-276). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **VCAM-1 (E-10): sc-13160**.