

VCAM-1 (C-19): sc-1504

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 B2 α 1 and B2 α 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 (C-19) is available as either goat (sc-1504) or rabbit (sc-1504-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of VCAM-1 of human origin.

PRODUCT

Each vial contains either 100 μ g (sc-1504) or 200 μ g (sc-1504-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1504 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-1504 AC, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

VCAM-1 (C-19) 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 μ g per 100-500 μ 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).

VCAM-1 (C-19) is also recommended for detection of VCAM-1 in additional species, including equine, canine and porcine.

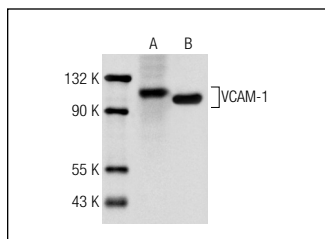
Suitable for use as control antibody for VCAM-1 siRNA (h): sc-29519, VCAM-1 siRNA (m): sc-36810, VCAM-1 shRNA Plasmid (h): sc-29519-SH, VCAM-1 shRNA Plasmid (m): sc-36810-SH, VCAM-1 shRNA (h) Lentiviral Particles: sc-29519-V and VCAM-1 shRNA (m) Lentiviral Particles: sc-36810-V.

Molecular Weight of VCAM-1: 110 kDa.

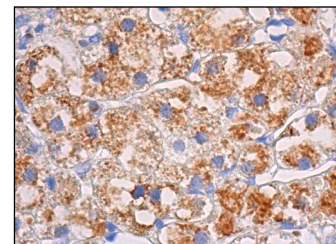
STORAGE

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

DATA



VCAM-1 (C-19): sc-1504. Western blot analysis of VCAM-1 expression in L8 (A) and Sol8 (B) whole cell lysates.



VCAM-1 (C-19)-R: sc-1504-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Sata, M., et al. 1998. TNF α regulation of FAS ligand expression on the vascular endothelium modulates leukocyte extravasation. *Nat. Med.* 4: 415-420.
2. Albrecht, C., et al. 2010. Egr-1 deficiency in bone marrow-derived cells reduces atherosclerotic lesion formation in a hyperlipidaemic mouse model. *Cardiovasc. Res.* 86: 321-329.
3. Viel, E.C., et al. 2010. Immune regulation and vascular inflammation in genetic hypertension. *Am. J. Physiol. Heart Circ. Physiol.* 298: H938-H944.
4. Li, M., et al. 2011. Emergence of fibroblasts with a proinflammatory epigenetically altered phenotype in severe hypoxic pulmonary hypertension. *J. Immunol.* 187: 2711-2722.
5. Smeding, L., et al. 2012. Early myocardial dysfunction is not caused by mitochondrial abnormalities in a rat model of peritonitis. *J. Surg. Res.* 176: 178-184.
6. Simic, B., et al. 2012. Torcetrapib impairs endothelial function in hypertension. *Eur. Heart J.* 33: 1615-1624.
7. Hernot, S., et al. 2012. Nanobody-coupled microbubbles as novel molecular tracer. *J. Control. Release* 158: 346-353.

RESEARCH USE

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



Try **VCAM-1 (E-10): sc-13160** or **VCAM-1 (M/K-2): sc-18864**, our highly recommended monoclonal alternatives to VCAM-1 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **VCAM-1 (E-10): sc-13160**.