

# MAdCAM-1 (K-19): sc-16004

## BACKGROUND

The recirculation of lymphocytes through different organs is thought to be regulated by adhesion molecules ("homing receptors") recognizing tissue-specific vascular addressins on the endothelium. The mucosal vascular addressin, MAdCAM-1 (mucosal addressin cell adhesion molecule 1), is an immunoglobulin superfamily adhesion molecule for lymphocytes that is expressed by mucosal venules and helps direct lymphocyte traffic into Peyer's patches and the intestinal lamina propria. MAdCAM-1 acts as an endothelial cell ligand for leukocyte homing receptors L-Selectin and Integrin  $\alpha 4/\beta 7$ . MAdCAM-1 is strongly expressed on inflamed portal vein/sinusoidal endothelium in autoimmune-mediated liver disease and plays a major contributory role in the progression of chronic experimental autoimmune encephalomyelitis.

## REFERENCES

- Berlin, C., et al. 1993.  $\alpha 4\beta 7$  integrin mediates lymphocyte binding to the mucosal vascular addressin MAdCAM-1. *Cell* 74: 185-185.
- Hamann, A., et al. 1994. Role of  $\alpha 4$ -integrins in lymphocyte homing to mucosal tissues *in vivo*. *J. Immunol.* 152: 3282-3293.

## CHROMOSOMAL LOCATION

Genetic locus: MADCAM1 (human) mapping to 19p13.3, CHGA (human) mapping to 14q32.

## SOURCE

MAdCAM-1 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MAdCAM-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.

Blocking peptide available for competition studies, sc-16004 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

MAdCAM-1 (K-19) is recommended for detection of MAdCAM-1 isoform a, b, c and c precursors and, to a lesser extent, chromogranin A 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight (predicted) of MAdCAM-1 isoforms: 40/29 kDa.

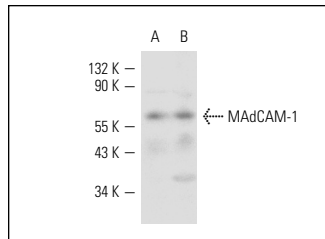
Molecular Weight (observed) of MAdCAM-1: 29/40/55-60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or ECV304 cell lysate: sc-2269.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MAdCAM-1 (K-19): sc-16004. Western blot analysis of MAdCAM-1 expression in HeLa (A) and ECV304 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Wada, T., et al. 2005. Dexamethasone prevents podocyte apoptosis induced by puromycin aminonucleoside: role of p53 and Bcl-2-related family proteins. *J. Am. Soc. Nephrol.* 16: 2615-2625.
- Kitaya, K. and Yasuo, T. 2010. Aberrant expression of selectin E, CXCL1, and CXCL13 in chronic endometritis. *Mod. Pathol.* 23: 1136-1146.

## 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) or our catalog for detailed protocols and support products.


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Try **MAdCAM-1 (H-3): sc-365934** or **MAdCAM-1 (G-3): sc-514599**, our highly recommended monoclonal alternatives to MAdCAM-1 (K-19).