

MAdCAM-1 (F-6): sc-374398

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 $\alpha 4\beta 7$ integrin. 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: 185-195.
- 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; Madcam1 (mouse) mapping to 10 C1.

SOURCE

MAdCAM-1 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 5-43 near the N-terminus of MAdCAM-1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAdCAM-1 (F-6) is available conjugated to agarose (sc-374398 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374398 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374398 PE), fluorescein (sc-374398 FITC), Alexa Fluor® 488 (sc-374398 AF488), Alexa Fluor® 546 (sc-374398 AF546), Alexa Fluor® 594 (sc-374398 AF594) or Alexa Fluor® 647 (sc-374398 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374398 AF680) or Alexa Fluor® 790 (sc-374398 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374398 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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 (F-6) is recommended for detection of MAdCAM-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAdCAM-1 siRNA (h): sc-43037, MAdCAM-1 siRNA (m): sc-43038, MAdCAM-1 shRNA Plasmid (h): sc-43037-SH, MAdCAM-1 shRNA Plasmid (m): sc-43038-SH, MAdCAM-1 shRNA (h) Lentiviral Particles: sc-43037-V and MAdCAM-1 shRNA (m) Lentiviral Particles: sc-43038-V.

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

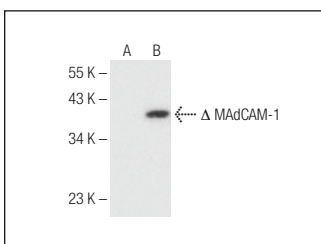
Molecular Weight (observed) of MAdCAM-1 isoforms: 29/40/55-60 kDa.

Positive Controls: MAdCAM-1 (m): 293T Lysate: sc-121483 or rat spleen extract: sc-2397.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® 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 κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MAdCAM-1 (F-6): sc-374398. Western blot analysis of MAdCAM-1 expression in non-transfected: sc-117752 (A) and truncated mouse MAdCAM-1 transfected: sc-121483 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Li, Y., et al. 2020. Scutellarein inhibits the development of colon cancer via Cdc4-mediated RAGE ubiquitination. *Int. J. Mol. Med.* 45: 1059-1072.
- Su, Y., et al. 2023. The force-dependent mechanism of an integrin $\alpha 4\beta 7$ -MAdCAM-1 interaction. *Int. J. Mol. Sci.* 24: 16062.

RESEARCH USE

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