

**Qty:** 100 μg/200 μL Mouse anti MAdCAM-1 **Catalog No.** 37-5700 Lot No.

# Mouse anti MAdCAM-1

## FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: 355G8 ISOTYPE: Mouse IgG<sub>1/k</sub>

#### IMMUNOGEN

Recombinant soluble form of MAdCAM-1-Fc (first Ig domain), which shares 56% identity with mouse and rat.

## SPECIFICITY

This antibody is specific for human MAdCAM-1 00(Mucosal addressin cell adhesion molecule 1). The epitope maps to the first Ig domain of human MAdCAM-1. On Western blots, it identifies a band at 70 kDa.

#### REACTIVITY

Reactivity has been confirmed with recombinant human MAdCAM-1by Western blotting and with paraffin-embedded human osteoarthritic synovium by immunohistochemistry<sup>1</sup>.

Sample	ELISA	Western Blotting	Immuno- fluorescence	Functional Inhibition*	Immuno- histochemisty (Paraffin) <sup>1</sup>
Human	+++	ND	0	+++	++
Immunogen	+++	+++	+++	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND) \*Blocks adhesion

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA:	0.1-1.0 µg/ml
Western Blotting:	0.5-1 µg/ml
Immunofluorescence:	1-2 µg/ml
Immunohistochemistry:	0.5-5 µg/ml
Adhesion Blocking:	10 µg/ml

### STORAGE

PI375700

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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### BACKGROUND

Mucosal addressin cell adhesion molecule-1 (MadCAM-1) is a cell-surface immunogloblin (Ig) superfamily member composed of two extracellular Ig domains, followed by a mucin-like domain, a transmembrane domain, and a short cutoplasmic domain<sup>2</sup>. The molecule is similar to ICAM1 and VCAM1. It interacts via its N-terminal Ig domain with the lymphocyte homing receptor  $\alpha 4\beta 7^3$ , which plays a critical role in forming the gut-associated lymphoid system. MAdCAM-1 promotes the adhesion of T and B cells, monocytes/macrophages, and potentially eosinophils, basophils, and differentiated mast cells to the vascular endothelium<sup>4</sup>. At least seven alternatively spliced transcripts encoding different protein isoforms have been found for this gene. The molecular weight is about 43 kDa, and it is highly expressed on high endothelial venules(VEC) and lamina propia venules found in the small intestine.

### REFERENCES

- 1. Leung E, et al. Immunol Cell Biol (in press, 2004).
- 2. Leung E, et al. Immunol Cell Biol 74:490-6, 1996.
- 3. Berlin C, et al. Cell 74:185-5, 1993.
- 4. Krissansen GW, et al. Oxford University Press, 1999.

### **RELATED PRODUCTS**

Product	Conjugate	Cat. No.
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

	ZyMAX™ Goat x Rabbit IgG	ZyMAX <sup>™</sup> Goat x Mouse IgG
Conjugate	(H+L)	(H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Су™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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