

**Alexa Fluor® 488 anti-mouse MAdCAM-1**

**Catalog # / Size:** 1203535 / 25 µg  
1203540 / 100 µg

**Clone:** MECA-367

**Isotype:** Rat IgG2a, κ

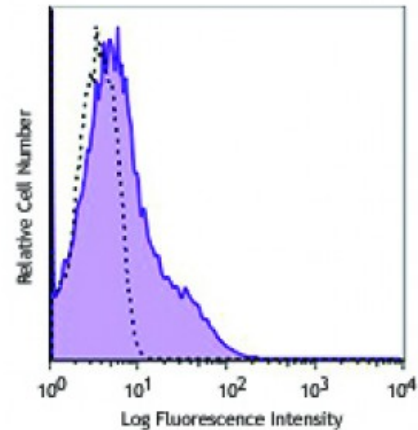
**Immunogen:** Endothelial cells

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5



TNFα-stimulated bEND.3 cells were stained with anti-mouse MAdCAM-1 (clone MECA-367) Alexa Fluor® 488 (filled histogram) or mouse IgG2a, κ Alexa Fluor® 488 isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: *in vitro* and *in vivo* blocking of lymphocyte adhesion and *in vivo* blocking of lymphocyte homing<sup>1-4,7</sup>, immunohistochemical staining<sup>1,5,6</sup> of acetone-fixed frozen sections, immunoprecipitation, and Western blotting<sup>1</sup>

**Application References:**

1. Streeter PR, *et al.* 1988. *Nature* 331:41.
2. Briskin MJ, *et al.* 1993. *Nature* 363:461.
3. Berlin C, *et al.* 1993. *Cell* 74:185.
4. Bargatze RF, *et al.* 1995. *Immunity* 3:99.
5. Tanneau GM, *et al.* 1999. *J. Histochem. Cytochem.* 47:1581.
6. Savinov AY, *et al.* 2003. *J. Exp. Med.* 197:643.
7. Rivera-Nieves J, *et al.* 2005. *J. Immunol.* 174:2343.
8. Kometani K, *et al.* 2011. *J. Exp Med.* 208:1447. [PubMed.](#)
9. Morrison BJ, *et al.* 2012. *PLoS One.* 7:e52692. [PubMed.](#)

**Description:** MAdCAM-1 is a 58-66kD type I glycoprotein, also known as Mucosal addressin cell adhesion molecule-1. This mucosal vascular addressin is a member of the Ig superfamily found on fetus and neonatal endothelial cells. In adults, MAdCAM-1 is predominately expressed on high endothelial venule (HEV) of Peyer's patches,

mesenteric lymph nodes and gut lamina propria. It is also expressed on vascular endothelium in mammary glands and pancreas. MAdCAM-1, through its interaction with integrin  $\alpha 4\beta 7$  or CD62L, is involved in lymphocyte tethering, rolling, and homing. It has been reported that immobilized MAdCAM-1 is able to co-stimulate T cell proliferation. The MECA-367 antibody blocks the interaction of MAdCAM-1 with its counter-receptor both *in vitro* and *in vivo*. *In vivo* administration of the mAb is able to reduce T-cell mediated inflammation in some gastrointestinal diseases.

- Antigen**
- References:**
1. Streeter PR, *et al.* 1988. *Nature* 331:41
  2. Briskin MJ, *et al.* 1993. *Nature* 363:461.
  3. Berlin C, *et al.* 1993. *Cell* 74:185.
  4. Lehnert K, *et al.* 1998. *Eur. J. Immunol.*