Biotin Rat Anti-Mouse MAdCAM-1

Product Information

Material Number: 553808
Alternate Name: MAdCAM-1; Madcam1; mMAdCAM-1; MADCA
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: MECA-89
Immunogen: Mouse mesenteric and peripheral lymph node cells
Isotype: Rat (W) IgG2a, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MECA-89 antibody specifically recognizes the mucosal vascular addressin cell adhesion molecule (MAdCAM-1). In the fetus and neonate, MAdCAM-1 is the predominant vascular addressin on the high endothelial venules (HEV) of peripheral lymph nodes. In adult mice, MAdCAM-1 is preferentially expressed in mucosal lymphoid tissues and lamina propria; it is also expressed on sinus-lining cells in the spleen. MAdCAM-1 expression is upregulated on the HEV of peripheral lymph nodes in adult NOD mice and is involved in the development of diabetes and insulitis. Furthermore, there is evidence that IFN-γ can induce MAdCAM-1 expression in non-mucosal sites in adult mice. MAdCAM-1 is a predominant ligand for integrin α4β7, a lymphocyte mucosal homing receptor, and a facultative ligand for CD62L (L-selectin). MECA-89 mAb binds to the second domain of MAdCAM-1 and does not block MAdCAM-1-dependent binding in vitro. Source of the immunogen was endothelial cells from BALB/c mouse mesenteric and peripheral lymph nodes.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Application Notes

Application

| Flow cytometry | Routinely Tested |

Recommended Assay Procedure:

For immunohistochemical staining, we recommend the use of Purified Rat Anti-Mouse MAdCAM-1 (Cat. No. 550555) in our special formulation for immunohistochemistry.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553928</td>
<td>Biotin Rat IgG2a κ Isotype Control</td>
<td>0.25 mg</td>
<td>R35-95</td>
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<tr>
<td>554061</td>
<td>PE Streptavidin</td>
<td>0.5 mg</td>
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<tr>
<td>550555</td>
<td>Purified Rat Anti-Mouse MAdCAM-1</td>
<td>1 mL</td>
<td>MECA-89</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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</tbody>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
References
Hänninen A, Saini M, Simell O, Andrew D, Jalkanen S. Recirculation and homing of lymphocyte subsets: dual homing specificity of beta 7-integrin(high)
Yang XD, Sytwu HK, McDevitt HO, Michie SA. Involvement of beta 7 integrin and mucosal addressin cell adhesion molecule-1 (MAdCAM-1) in the development of diabetes in obese diabetic mice. Diabetes. 1997; 46(10):1542-1547. (Biology)