### Datasheet: MCA1334B

**Description:** MOUSE ANTI RAT CD31:Biotin  

**Specificity:** CD31  

**Other names:** PECAM-1  

**Format:** Biotin  

**Product Type:** Monoclonal Antibody  

**Clone:** TLD-3A12  

**Isotype:** IgG1  

**Quantity:** 0.1 mg  

### Product Details

**RRID** AB_566718

**Applications**  
This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

<table>
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<tr>
<th>Applications</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<td>Flow Cytometry</td>
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<td>Functional Assays (1)</td>
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Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) **Bio-Rad recommend the use of MCA1334EL for use in functional studies**

**Target Species**  
Rat

**Species Cross Reactivity**  
Reacts with: Rhesus Monkey, Pig  

**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form**  
Purified IgG conjugated to Biotin - liquid

**Preparation**  
Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution**  
Phosphate buffered saline

**Preservative Stabilisers**  
0.09% Sodium Azide  
1% Bovine Serum Albumin

**Approx. Protein Concentrations**  
IgG concentration 0.1 mg/ml

**Immunogen**  
Activated, Lewis rat derived microglial cells.
Spleen cells from immunised BALB/c mouse were fused with cells of the mouse SP2 myeloma cell line.

**Specificity**

Mouse anti Rat CD31 antibody, clone TLD-3A12 recognizes rat PECAM-1 (CD31), a 661 amino acid type 1 transmembrane protein expressed primarily on endothelial cells, platelets and leucocytes.

Clone TLD-3A12 has been shown to partially block the proliferative response of antigen-specific CD4+ T cells to antigen-presenting cells and relevant antigen (Stevenson, K.S. et al. 2009).

Mouse anti Rat CD31 antibody, clone TLD-3A12 is suitable for use in IHC on formalin-fixed paraffin-embedded sections pre-treated with 0.2M boric acid, pH7.0. (Wilson et al. 2007). Mouse anti Rat CD31, clone TLD-3A12 has been shown to be cross-reactive with endothelial cells derived from rhesus macaque (Maclean et al. 2001).

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

**References**

32. Matsugami, H.et al. (2014) VEGF secretion by adipose tissue-derived regenerative cells is impaired under hyperglycemic conditions via glucose transporter activation and ROS increase Biomedical Research. 35 (6): 397-405.

Storage
Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life
18 months from date of despatch.

Health And Safety
Material Safety Datasheet documentation #10041 available at:

Regulatory
For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Biotin (MCA1209B)