Datasheet: MCA1334PE

**Description:** MOUSE ANTI RAT CD31:RPE

**Specificity:** CD31

**Other names:** PECAM-1

**Format:** RPE

**Product Type:** Monoclonal Antibody

**Clone:** TLD-3A12

**Isotype:** IgG1

**Quantity:** 100 TESTS

### Product Details

#### 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>
<thead>
<tr>
<th>Suggested Dilution</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
<td>Yes</td>
<td>No</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Functional Assays (1)</td>
<td>Yes</td>
<td>No</td>
<td>Not Determined</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 R. Phycoerythrin (RPE) - lyophilized

#### Reconstitution

Reconstitute with 1 ml distilled water

#### Max Ex/Em

<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
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<tbody>
<tr>
<td>RPE 488nm laser</td>
<td>496</td>
<td>578</td>
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</table>

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

#### Preservative Stabilisers

<table>
<thead>
<tr>
<th>0.09% Sodium Azide</th>
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<tbody>
<tr>
<td>1% Bovine Serum Albumin</td>
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<tr>
<td>5% Sucrose</td>
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#### 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.


35. Lim S et al. (2016) Attenuation of carotid neointimal formation after direct delivery of a
pii: cvw213. [Epub ahead of print]

**Storage**

Store at +4°C. DO NOT FREEZE.
This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life**

12 months from date of reconstitution.

**Health And Safety Information**

Material Safety Datasheet documentation #10075 available at:

**Regulatory**

For research purposes only

**Related Products**

**Recommended Negative Controls**

**MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA1209PE)**