Datasheet: MCA1334F

**Description:** MOUSE ANTI RAT CD31:FITC

**Specificity:** CD31

**Other names:** PECAM-1

**Format:** FITC

**Product Type:** Monoclonal Antibody

**Clone:** TLD-3A12

**Isotype:** IgG1

**Quantity:** 0.1 mg

### 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.

<table>
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<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<tbody>
<tr>
<td>Flow Cytometry</td>
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<td>Neat</td>
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<tr>
<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

**Product Form**

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

**Max Ex/Em**

<table>
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<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
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<tr>
<td>FITC</td>
<td>490</td>
<td>525</td>
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**Preparation**

Purified IgG prepared by affinity chromatography on Protein A 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.
35. Lim S et al. (2016) Attenuation of carotid neointimal formation after direct delivery of a

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. This product is photosensitive and should be protected from light.

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 Information

Material Safety Datasheet documentation #10041 available at:

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)