Datasheet: MCA1334FA

Description: MOUSE ANTI RAT CD31:FITC
Specificity: CD31
Other names: PECAM-1
Format: FITC
Product Type: Monoclonal Antibody
Clone: TLD-3A12
Isotype: IgG1
Quantity: 50 µg

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.

<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 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 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.
**External Database Links**

- UniProt: Q3SWT0 Related reagents
- Entrez Gene: 29583 Pecam1 Related reagents

**Synonyms**
Pecam

**Fusion Partners**
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

Recommended Products

**Recommended Negative Controls**

**MOUSE IgG1 NEGATIVE CONTROL: FITC (MCA1209F)**