## Datasheet: MCA1334A647

### Description:
MOUSE ANTI RAT CD31: Alexa Fluor® 647

### Specificity:
CD31

### Other names:
PECAM-1

### Format:
ALEXA FLUOR® 647

### Product Type:
Monoclonal Antibody

### Clone:
TLD-3A12

### Isotype:
IgG1

### Quantity:
100 TESTS/1ml

### 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>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
<td></td>
<td></td>
<td></td>
<td>Neat - 1/10</td>
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<tr>
<td>Functional Assays (1)</td>
<td></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 Alexa Fluor®647- liquid

### Max Ex/Em

<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexa Fluor®647</td>
<td>650</td>
<td>665</td>
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</tbody>
</table>

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

### Buffer Solution
Phosphate buffered saline

### Preservative Stablisers
0.09% Sodium Azide
1% Bovine Serum Albumin

### Approx. Protein Concentrations
IgG concentration 0.05 mg/ml

### Immunogen
Activated, Lewis rat derived microglial cells.
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.

**Acknowledgements**

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**Health And Safety Information**


**Regulatory**

For research purposes only

**Related Products**

**Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL: Alexa Fluor® 647 (MCA1209A647)