Datasheet: MCA1334GA

<table>
<thead>
<tr>
<th>Description:</th>
<th>MOUSE ANTI RAT CD31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity:</td>
<td>CD31</td>
</tr>
<tr>
<td>Other names:</td>
<td>PECAM-1</td>
</tr>
<tr>
<td>Format:</td>
<td>Purified</td>
</tr>
<tr>
<td>Product Type:</td>
<td>Monoclonal Antibody</td>
</tr>
<tr>
<td>Clone:</td>
<td>TLD-3A12</td>
</tr>
<tr>
<td>Isotype:</td>
<td>IgG1</td>
</tr>
<tr>
<td>Quantity:</td>
<td>0.1 mg</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Applications</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>1/10 - 1/100</td>
</tr>
<tr>
<td>Immunohistology - Frozen</td>
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<td></td>
<td></td>
<td>1/10 - 1/100</td>
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<tr>
<td>Immunohistology - Paraffin</td>
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<td>ELISA</td>
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<td>Immunoprecipitation</td>
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<td>Western Blotting</td>
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<tr>
<td>Immunofluorescence</td>
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<tr>
<td>Functional Assays (1)</td>
<td></td>
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</tbody>
</table>

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 - liquid

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

Carrier Free: Yes
### Approx. Protein Concentrations
IgG concentration 1.0 mg/ml

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

### External Database Links

**UniProt:**
- Q3SWT0

**Entrez Gene:**
- 29583

### 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
10. Lochhead, J.J. *et al.* (2010) Oxidative stress increases blood-brain barrier permeability and
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 Information**


**Regulatory**

For research purposes only

**Related Products**

**Recommended Secondary Antibodies**

<table>
<thead>
<tr>
<th>Antibody Description</th>
<th>Link</th>
</tr>
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<tbody>
<tr>
<td>Goat Anti Mouse IgG (STAR76...)</td>
<td>RPE</td>
</tr>
<tr>
<td>Goat Anti Mouse IgG IgA IgM (STAR87...)</td>
<td>Alk. Phos., HRP</td>
</tr>
<tr>
<td>Rabbit Anti Mouse IgG (STAR9...)</td>
<td>FITC</td>
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<tr>
<td>Goat Anti Mouse IgG (STAR77...)</td>
<td>HRP</td>
</tr>
<tr>
<td>Rabbit Anti Mouse IgG (STAR12...)</td>
<td>RPE</td>
</tr>
<tr>
<td>Goat Anti Mouse IgG (Fc) (STAR120...)</td>
<td>FITC, HRP</td>
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<tr>
<td>Rabbit Anti Mouse IgG (STAR8...)</td>
<td>DyLight®800</td>
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<tr>
<td>Goat Anti Mouse IgG (STAR70...)</td>
<td>FITC</td>
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<tr>
<td>Rabbit Anti Mouse IgG (STAR13...)</td>
<td>HRP</td>
</tr>
<tr>
<td>Human Anti Mouse IgG1 (HCA036...)</td>
<td>HRP</td>
</tr>
</tbody>
</table>
Goat Anti Mouse IgG (H/L) (STAR117...)

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA1209)