Datasheet: MCA497PET

<table>
<thead>
<tr>
<th>Description:</th>
<th>RAT ANTI MOUSE F4/80:RPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity:</td>
<td>F4/80</td>
</tr>
<tr>
<td>Format:</td>
<td>RPE</td>
</tr>
<tr>
<td>Product Type:</td>
<td>Monoclonal Antibody</td>
</tr>
<tr>
<td>Clone:</td>
<td>Cl:A3-1</td>
</tr>
<tr>
<td>Isotype:</td>
<td>IgG2b</td>
</tr>
<tr>
<td>Quantity:</td>
<td>25 TESTS</td>
</tr>
</tbody>
</table>

### 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</td>
</tr>
<tr>
<td>Immunofluorescence</td>
<td></td>
<td></td>
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</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.

### Target Species

Mouse

### Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

### Reconstitution

Reconstitute with 0.25 ml distilled water

### Max Ex/Em

<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation (nm)</th>
<th>Emission (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 488nm laser</td>
<td>496</td>
<td>578</td>
</tr>
<tr>
<td>PE 561nm laser</td>
<td>546</td>
<td>578</td>
</tr>
</tbody>
</table>

### 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
- 5% Sucrose

### Immunogen

Thioglycollate stimulated peritoneal macrophages from C57BL/6 mice.

### External Database Links

UniProt:
Spleen cells from immunised HOB2 rats were fused with cells of the mouse NS1 myeloma cell line.

**Specificity**

Rat anti mouse F4/80 antibody, clone Cl:A3-1 recognises the murine F4/80 antigen, a ~160 kDa cell surface glycoprotein member of the EGF-TM7 family of proteins which shares 68% overall amino acid identity with human EGF module-containing mucin-like hormone receptor 1 (EMR1).

Expression of F4/80 is heterogeneous and is modulated during macrophage maturation and activation. The F4/80 antigen is expressed on a wide range of mature tissue macrophages including Kupffer cells, Langerhans cells, microglia, macrophages located in the gut lamina propria, peritoneal cavity, lung, thymus, bone marrow stroma and macrophages in the red pulp of the spleen (Hume, et al. 1984). F4/80 antigen is also expressed on a subpopulation of dendritic cells but is absent from macrophages located in T cell areas of the spleen and lymph node (Gordon, et al. 1994). The ligands and biological functions of the F4/80 antigen have not been fully determined but a role for F4/80 in the generation of efferent CD8+ve regulatory T cells is proposed (Lin, et al. 2005).


A Human anti-idiotypic Cl:A31 antibody, clone 17867 (HCA154) which binds to and blocks activity of Rat anti mouse F4/80 antibody, clone Cl:A3-1 is also available for use as a control in experiments utilizing clone A3-1.

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10^8 cells in 100ul.

**References**

8. Hemmi, H. *et al.* (2009) A new triggering receptor expressed on myeloid cells (Trem) family member, Trem-like 4, binds to dead cells and is a DNAX activation protein 12-linked marker for...

Storage
Prior to reconstitution store at +4°C.
After reconstitution store at +4°C.
DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and...
should be protected from light.

<table>
<thead>
<tr>
<th>Shelf Life</th>
<th>12 months from date of reconstitution.</th>
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</thead>
<tbody>
<tr>
<td>Regulatory</td>
<td>For research purposes only</td>
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</table>

### Related Products

**Recommended Useful Reagents**

- MOUSE SEROBLOCK FcR (BUF041A)
- MOUSE SEROBLOCK FcR (BUF041B)

<table>
<thead>
<tr>
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<th>Tel: +1 800 265 7376</th>
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<tbody>
<tr>
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