Datasheet: MCA497R

**Description:** RAT ANTI MOUSE F4/80

**Specificity:** F4/80

**Format:** Purified

**Product Type:** Monoclonal Antibody

**Clone:** Cl:A3-1

**Isotype:** IgG2b

**Quantity:** 0.25 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](http://www.bio-rad-antibodies.com/protocols).

<table>
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<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<tr>
<td>Flow Cytometry</td>
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<td>1/50 - 1/100</td>
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<td>Immunohistology - Frozen</td>
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<td>Immunohistology - Paraffin (1)</td>
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<td>Immuno-electron Microscopy</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) Rat anti Mouse F4/80 antibody, clone A3-1 requires pre-treatment of paraffin sections prior to staining. Proteinase K is recommended for tissues fixed for less than 24 hours. Citrate buffer pH 6.0 is recommended for tissues fixed for more than 24 hours. Please view the protocol at [Antigen Retrieval Techniques](http://www.bio-rad-antibodies.com/protocols).

**Target Species**

Mouse

**Product Form**

Purified IgG - liquid

**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
Carrier Free: Yes

Approx. Protein Concentrations: IgG concentration 1.0 mg/ml

Immunogen: Thioglycollate stimulated peritoneal macrophages from C57BL/6 mice.

External Database Links:
- UniProt: Q61549
- Entrez Gene: 13733

Synonyms: Gpf480

Fusion Partners: 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)

Rat anti mouse F4/80 antibody, clone Cl:A3-1 modulates cytokine levels released in response to Listeria monocytogenes (Warschkau & Kiderlen, 1999).

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 10^6 cells in 100ul.

References:


29. Glastras, S.J. et al. (2017) The renal consequences of maternal obesity in offspring are

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

Related Products
Recommended Secondary Antibodies
Goat Anti Rat IgG (STAR73...) RPE
Goat Anti Rat IgG (STAR69...) FITC
Goat Anti Rat IgG2b (STAR114...) HRP
Goat Anti Rat IgG (H/L) (305001...) HRP