

## Product datasheet

# Anti-Macrophage antibody [RM0029-11H3] ab56297

★★★★★ [2 Abreviews](#) [35 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-Macrophage antibody [RM0029-11H3]
<b>Description</b>	Rat monoclonal [RM0029-11H3] to Macrophage
<b>Host species</b>	Rat
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, Flow Cyt, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Immunogen</b>	Isolated mouse peritoneal macrophages
<b>Positive control</b>	Spleen, Lymph node, Diseased (GBM) mouse kidney tissue. IF/ICC: RAW246.7
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Constituent: PBS
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	RM0029-11H3
<b>Isotype</b>	IgG2a

### Applications

The **Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab56297 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

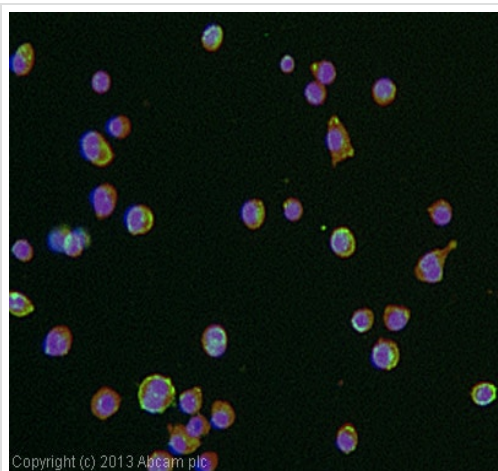
Application	Abreviews	Notes
ICC/IF		Use a concentration of 10 µg/ml.
Flow Cyt		Use 2µg for 10 <sup>6</sup> cells. <b>ab18450</b> - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (2)	Use at an assay dependent concentration. Perform enzymatic antigen retrieval before commencing with IHC staining protocol.

## Target

### Relevance

Macrophages comprise of many forms of mononuclear phagocytes found in tissues. Mononuclear phagocytes arise from hematopoietic stem cells in the bone marrow. After passing through the monoblast and promonocyte states of the monocyte stage, they enter the blood, where they circulate for about 40 hours. They then enter tissues and increase in size, phagocytic activity, and lysosomal enzyme content becoming macrophages. Among the functions of macrophages are nonspecific phagocytosis and pinocytosis, specific phagocytosis of opsonized microorganisms mediated by Fc receptors and complement receptors, killing of ingested microorganisms, digestion and presentation of antigens to T and B lymphocytes, and secretion of a large number of diverse products, including many enzymes including lysozyme and collagenases, several complement components and coagulation factors, some prostaglandins and leukotrienes, and many regulatory molecules (Interferon, Interleukin 1). Among cells that are now recognised as macrophages are histiocytes, Kupffer cells, osteoclasts, microglial cells, synovial type A cells, interdigitating cells, and Langerhans cells (in normal tissues) and epithelioid cells and Langerhans-type and foreign-body-type multinucleated giant cells (in inflamed tissues).

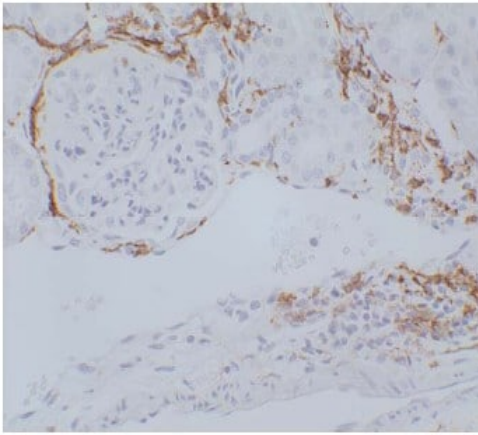
## Images



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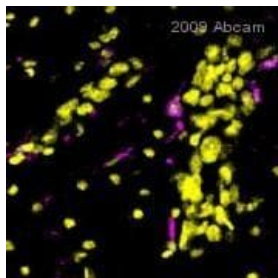
Immunocytochemistry/ Immunofluorescence - Anti-Macrophage antibody [RM0029-11H3] (ab56297)

ICC/IF image of ab56297 stained RAW246.7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab56297, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96887**, DyLight® 488 goat anti-rat IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Macrophage antibody  
[RM0029-11H3] (ab56297)

Bouin's solution fixed and paraffin embedded mouse kidney section from anti-GBM model was subjected to immunohistochemistry staining (ABC) of Macrophage using ab56297.



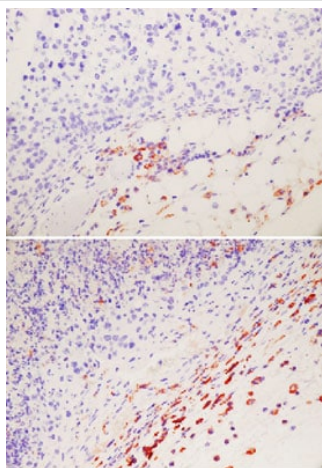
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Macrophage antibody  
[RM0029-11H3] (ab56297)

This image is courtesy of an anonymous Abreview

Ab56297 staining macrophage in mouse brain tumour tissue sections by (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 0.5% TNB blocking reagent for 30 minutes at 25°C. Samples were incubated with primary antibody at 1/100 dilution for 18 hours at 4 C. A goat anti-rat IgG H&L (HRP) ([ab7097](#)) was used at 1/500 dilution.

Flow Cytometry - Anti-Macrophage antibody  
[RM0029-11H3] (ab56297)

Overlay histogram showing RAW 264.7 cells stained with ab56297 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab56297, 2µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rat IgG (H+L) ([ab98386](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2a, kappa monoclonal [aRTK2758] ([ab18450](#), 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in RAW 264.7 cells fixed with 80% methanol/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunohistochemical analysis of murine tumour tissue, staining Macrophage with ab56297. Antigen retrieval was performed under high pressure in 10 mM EDTA buffer (pH 8.0) before incubation with primary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Macrophage antibody [RM0029-11H3] (ab56297)

Image from Wang B et al., BMC Immunol. 2011 Aug 4;12:43. Fig 1.; doi:10.1186/1471-2172-12-43; 4 August 2011, BMC Immunology 2011, 12:43

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