

Product datasheet

Anti-F4/80 antibody [BM8] ab16911

★★★★☆ [12 Abreviews](#) [129 References](#) [6 Images](#)

Overview

Product name	Anti-F4/80 antibody [BM8]
Description	Rat monoclonal [BM8] to F4/80
Host species	Rat
Specificity	The monoclonal antibody BM8 recognizes a 125 kDa extracellular macrophage membrane molecule, highly restricted to mature macrophage subpopulations residing in tissue. This antibody does not cross react with any of the following cell types from Mouse: granulocytes, mast cells, platelets, lymphocytes, fibroblasts or endothelial cells.
Tested applications	Suitable for: ICC, Flow Cyt, IHC-Fr
Species reactivity	Reacts with: Mouse, Human
Immunogen	Tissue, cells or virus corresponding to Mouse F4/80. BALB/c macrophages obtained from 14-day-old bone marrow cell cultures
Positive control	Flow Cyt: RAW and HeLa cells. IHC-Fr: Mouse liver and spleen tissues. ICC: Mouse brain and RAW246.7 cells.
General notes	<p>ab16911 is the only macrophage marker that is able to distinguish non-destructive from destructive inflammation processes in the pancreas. Furthermore it is a unique histological marker of the progression from peri-insulinitis to beta-cell and diabetes in a mouse diabetes model.</p> <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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 0.1% BSA
Purity	Protein G purified

Purification notes	Provided as a 0.2µm filtered antibody solution.
Primary antibody notes	ab16911 is the only macrophage marker that is able to distinguish non-destructive from destructive inflammation processes in the pancreas. Furthermore it is a unique histological marker of the progression from peri-insulinitis to beta-cell and diabetes in a mouse diabetes model.
Clonality	Monoclonal
Clone number	BM8
Isotype	IgG2a

Applications

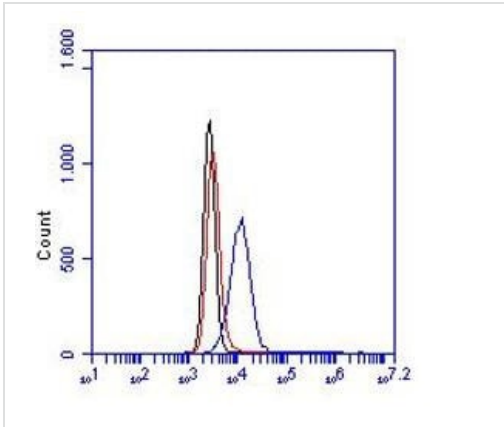
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab16911 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC	★★★★★ (3)	Use at an assay dependent concentration.
Flow Cyt		1/50. (Methanol fixed cells) ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
IHC-Fr	★★★★★ (3)	1/50. See Schaller et al. Fixation with acetone for 10 min at RT is recommended as is an incubation with 0.02 M sodium azide in PBS containing 0.1 % H2O2 for 10 min at RT to destroy endogenous peroxidase

Target

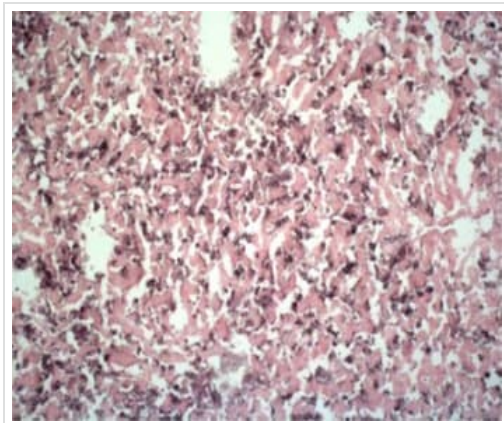
Function	Orphan receptor involved in cell adhesion and probably in cell-cell interactions specifically involving cells of the immune system. May play a role in regulatory T-cells (Treg) development.
Tissue specificity	Expression is restricted to eosinophils.
Sequence similarities	Belongs to the G-protein coupled receptor 2 family. Adhesion G-protein coupled receptor (ADGR) subfamily. Contains 6 EGF-like domains. Contains 1 GPS domain.
Cellular localization	Cell membrane.

Images



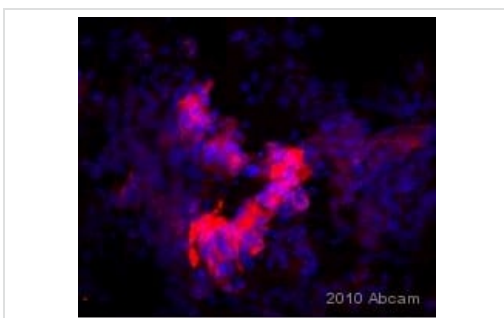
Flow Cytometry - Anti-F4/80 antibody [BM8]
(ab16911)

Detection of F4/80 in RAW cells. Red, black and blue line represent the isotype control, cells only and ab16911 at 10 µg/ml, respectively.



Immunohistochemistry (Frozen sections) - Anti-F4/80 antibody [BM8] (ab16911)

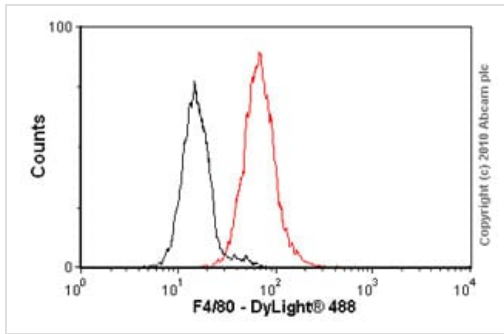
ab16911 staining F4/80 on macrophages in mouse liver tissue by Immunohistochemistry (Frozen sections).



Immunocytochemistry - Anti-F4/80 antibody [BM8]
(ab16911)

ab16911 staining F4/80 in Mouse brain cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with acetone and blocked with 5% BSA for 1 hour at 20°C. Samples were incubated with primary antibody (1/250) for 16 hours at 4°C. An Alexa Fluor[®]568-conjugated Goat anti-rat IgG polyclonal (1/1000) was used as the secondary antibody.

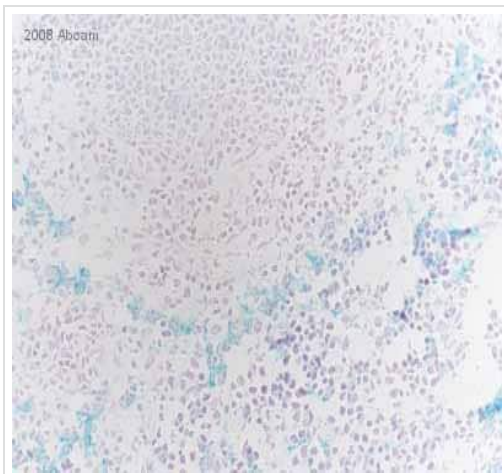
This image is courtesy of an anonymous Abreview



Flow Cytometry - Anti-F4/80 antibody [BM8] (ab16911)

Overlay histogram showing HeLa cells stained with ab16911 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab16911, 1/10 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rat IgG (Fc) ([ab96971](#)) at 1/250 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2a [aRTK2758] ([ab18450](#), 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a significantly decreased signal in HeLa cells fixed with 4% paraformaldehyde (10 min) used under the same conditions.

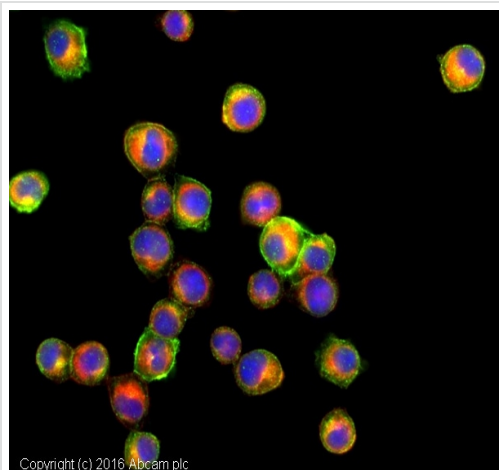
Please note that Abcam does not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Immunohistochemistry (Frozen sections) - Anti-F4/80 antibody [BM8] (ab16911)

This image is courtesy of an Abreview submitted by Miss Silke Vorwald

ab16911 staining mouse spleen tissue sections by immunohistochemistry (frozen sections). Sections were paraformaldehyde fixed without permeabilization and blocked in 1% serum for 10 minutes at 20°C. The primary antibody was used undiluted and incubated with sample for 16 hour at 20°C. A Biotin conjugated goat polyclonal to rat Ig, diluted 1/500 was used as the secondary antibody.



Immunocytochemistry - Anti-F4/80 antibody [BM8] (ab16911)

ab16911 stained RAW246.7 cells. The cells were 100% methanol fixed for 5 minutes at -20°C and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab16911 at 1in50 dilution) overnight at +4°C. The secondary antibody (pseudo-colored green) was **Goat Anti-Rat IgG H&L (Alexa Fluor® 488) preadsorbed (ab150165)** used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.

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