abcam

ab60343

FITC Anti-F4/80 antibody [BM8]

Anti-F4/80 antibody [BM8] conjugated to FITC - suitable for flow cytometry, ICC/IF, and reacts with mouse samples. Clone [BM8] is a rat monoclonal antibody and one of the most commonly used clones for flow cytometry.

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Key facts

Isotype	IgG2a
Host species	Rat
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 0.87% Sodium chloride, 0.14% Sodium dihydrogen phosphate, 0.1% Gelatin
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Adgre1 protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	BM8
Purification technique	Affinity purification
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/50 - 1/100
Notes	ab18446 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

ICC/IF

Tested

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Target data

See full target information Adgre1

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

This antibody is the only macrophage marker that is able to distinguish non-destructive from destructive inflammation processes in the pancreas. It is a unique histological marker of the progression from peri-insulitis to beta-cell destruction and diabetes in a mouse diabetes model.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	F4/80 also known as Emr1 (Epidermal growth factor module-containing mucin-like hormone receptor 1) is a well-characterized surface protein with a mass of approximately 160 kDa. This protein is recognized as a marker for murine macrophages. F4/80 is heavily expressed on cells of the monocyte and macrophage lineage particularly in tissue-resident macrophages found in organs like the liver spleen and lung. Its expression is vital for identifying macrophages in various types of immunological studies including F4/80 staining and macrophage marker analysis.
Biological function summary	F4/80 plays a role in modulating the immune response by interacting with other cell surface molecules. While not part of a larger protein complex F4/80 influences macrophage functions such as phagocytosis and cytokine production. Its expression contributes to the regulation of tissue homeostasis and inflammation. The protein is critical in maintaining the macrophage population required for reliable immune surveillance and response to pathogens.
Pathways	F4/80 is an integral part of the immunological and inflammatory signaling pathways. It interacts with TLRs (Toll-like receptors) and other cell surface molecules that sense microbial components therefore helping in the initiation of innate immune responses. F4/80 is connected to proteins like cytokine receptors which play roles in mediating and resolving inflammatory signals important for maintaining balanced immune activity.
Associated diseases and disorders	F4/80 is associated with conditions like chronic inflammation and autoimmune disorders. Its expression levels can often correlate with disease state impacting diseases such as rheumatoid arthritis and liver fibrosis. In these conditions F4/80 interacts with proteins like TNF-alpha and IL-1beta which are involved in inflammatory processes. Understanding F4/80's role can help uncover therapeutic targets aimed at modulating macrophage functions to treat these disorders effectively.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

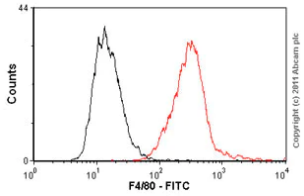
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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2 product images

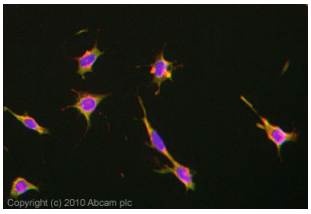


Flow Cytometry - FITC Anti-F4/80 antibody [BM8] (ab60343)

F4/80 Flow Cytometry staining using rat Anti-F4/80 antibody

Overlay histogram showing RAW 264.7 cells stained with ab60343 (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 (ab60343, 1/100 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2a [aRTK2758] (ab18450, 2µg/1x10^6 cells) with secondary antibody DyLight® 488 goat anti-rat IgG (H+L) (ab98386) at 1/500 dilution for 30 min at 22°C. Acquisition of >5,000 events was performed. This antibody gave a minimal signal in RAW 264.7 cells fixed with methanol (5 min) used under the same conditions.

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



Immunocytochemistry/ Immunofluorescence - FITC Anti-F4/80 antibody [BM8] (ab60343)

F4/80 Immunocytochemistry/ Immunofluorescence staining using rat Anti-F4/80 antibody

ICC/IF image of ab60343 stained MEF cells. The cells were 4% PFA fixed (10 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 (ab60343, 1µg/ml, FITC conjugated) overnight at +4°C. 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.