abcam

ab234530

Anti-F4/80 antibody [EPR20548] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR20548
Purification technique	Affinity purification Protein A

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Target data

See full target information Adgre1

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab234530 is the carrier-free version of ab213200.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

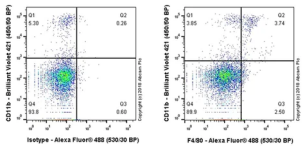
We do not recommend this combination. It is not covered by our product promise.

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:
Terms & Conditions.

1 product image



Flow Cytometry - Anti-F4/80 antibody [EPR20548] - BSA and Azide free (ab234530)

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

Flow cytometric analysis of Mouse primary bone marrow cells labeling F4/80 with ab213200 at 1/500 dilution (right panel) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (left panel). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
The expression profile is consistent with the literature. CD11b+/ F4/80+ cells represent a rare population of macrophages in mouse bone marrow (PMID: 19620305 and 20625428).

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab213200).

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