abcam

ab270798

Anti-EMR1/ADGRE1 (F4/80) antibody [EPR23225-94] - 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	EPR23225-94
Purification technique	Affinity purification Protein A
Concentration	0.946 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
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

ab270798 is the carrier-free version of ab254293.

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	The EMR1/ADGRE1 (F4/80) is a protein known for its role in cellular adhesion and migration. It is also referred to as EMR1 or ADGRE1 and is a member of the class B seven-span transmembrane receptor family. The protein has a molecular mass of about 90 kDa and primarily expresses on the surface of tissue-resident macrophages. Its expression serves as a marker to identify murine macrophages thereby providing a way to study subsets of immune cells within diverse tissues.
Biological function summary	This protein influences the regulation of immune responses and macrophage actions. It does not appear to work alone; it forms part of a larger receptor complex that participates in interaction with other cellular components modulating biological processes such as phagocytosis and the release of cytokines. These roles position the ADGRE1 macrophage in the immune surveillance of tissues influencing homeostasis and response to injury or infection.
Pathways	ADGRE1/EMR1 (F4/80) takes part in signal transduction pathways related to the innate immune response. It interacts with proteins involved in macrophage activation and cellular signaling such as TLR4 and CD14. These pathways are instrumental in mediating responses to pathogens and tissue damage integrating the ADGRE1 marker in processes that initiate and propagate immune signaling cascades.
Associated diseases and disorders	ADGRE1/EMR1 (F4/80) shows involvement in inflammatory conditions and autoimmune disorders. For example it is relevant to research in diseases like inflammatory bowel disease and rheumatoid arthritis where macrophage-mediated inflammation plays a significant role. In these conditions the protein interacts with cytokines like TNF-alpha linking its expression to clinical manifestations and therapeutic targets. This association makes this protein a potential focal point for understanding and potentially mitigating disease pathology.

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

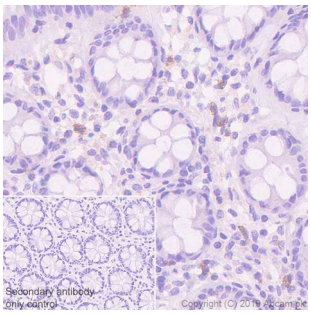
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images



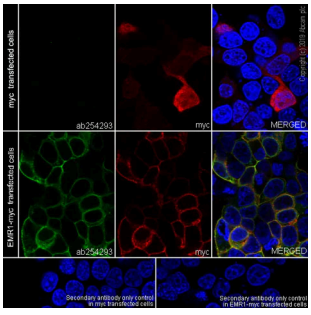
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EMR1/ADGRE1 (F4/80) antibody [EPR23225-94] - BSA and Azide free (ab270798)

EMR1/ADGRE1 (F4/80) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EMR1/ADGRE1 (F4/80) antibody

This data was developed using ab254293, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling EMR1/ADGRE1 with ab254293 at 1/16000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining in eosinophils of human colon (PMID:17823986).The section was incubated with ab254293 for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

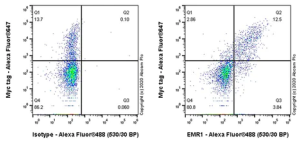


Immunocytochemistry/ Immunofluorescence - Anti-EMR1/ADGRE1 (F4/80) antibody [EPR23225-94] - BSA and Azide free (ab270798)

EMR1/ADGRE1 (F4/80) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EMR1/ADGRE1 (F4/80) antibody

This data was developed using ab254293, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEK-293 cells labelling EMR1/ADGRE1 with ab254293 at 1/100 dilution, followed by antibody at 1/1000 dilution (Green). Confocal image showing positive staining in HEK-293 cell line transfected with myc-tagged EMR1/ADGRE1 expression vector. 2233S Myc-Tag (9B11) Mouse mAb (Alexa Fluor® 647 Conjugate) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is at 1000 dilution.

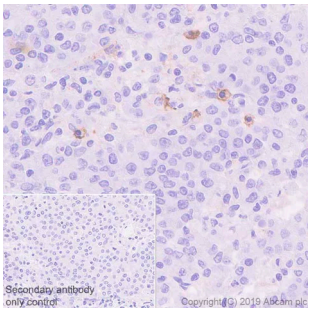


Flow Cytometry - Anti-EMR1/ADGRE1 (F4/80) antibody [EPR23225-94] - BSA and Azide free (ab270798)

EMR1/ADGRE1 (F4/80) Flow Cytometry staining using rabbit Anti-EMR1/ADGRE1 (F4/80) antibody

This data was developed using ab254293, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 2% paraformaldehyde-fixed, 0.1% Tween-20 permeabilized HEK-293T (transfected with myc tagged EMR1/ADGRE1 construct) cells labelling EMR1/ADGRE1 with ab254293 at 1/500 (Right) compared with a Rabbit monoclonal IgG (ab172730) (Left). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 was used as the secondary antibody.

Cells were surface stained with isotype control (ab172730) or ab254293. Then fixed with 2% PFA for 10min followed by intracellularly stained with anti-myc tag conjugated to Alexa Fluor® 647.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EMR1/ADGRE1 (F4/80) antibody [EPR23225-94] - BSA and Azide free (ab270798)

EMR1/ADGRE1 (F4/80) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EMR1/ADGRE1 (F4/80) antibody

This data was developed using ab254293, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human gastric cancer tissue labeling EMR1/ADGRE1 with ab254293 at 1/16000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining in eosinophils of human gastric cancer (PMID:17823986).The section was incubated with ab254293 for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

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