abcam

ab259865

Anti-CXCR3/CD183 antibody [EPR23845-44]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23845-44
Purification technique	Affinity purification Protein A
Concentration	0.487 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Rat, Human, Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/50500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CXCR3/CD183

Function	Isoform 1. Receptor for the C-X-C chemokine CXCL9, CXCL10 and CXCL11 and mediates the proliferation, survival and angiogenic activity of human mesangial cells (HMC) through a heterotrimeric G-protein signaling pathway (PubMed:12782716). Binds to CCL21. Probably promotes cell chemotaxis response. Upon activation by PF4, induces activated T-lymphocytes migration mediated via downstream Ras/extracellular signal-regulated kinase (ERK) signaling. Isoform 2. Receptor for the C-X-C chemokine CXCL4 and also mediates the inhibitory activities of CXCL9, CXCL10 and CXCL11 on the proliferation, survival and angiogenic activity of human microvascular endothelial cells (HMVEC) through a cAMP-mediated signaling pathway (PubMed:12782716). Does not promote cell chemotaxis respons. Interaction with CXCL4 or CXCL10 leads to activation of the p38MAPK pathway and contributes to inhibition of angiogenesis. Overexpression in renal cancer cells down-regulates expression of the anti-apoptotic protein HMOX1 and promotes apoptosis. Isoform 3. Mediates the activity of CXCL11.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	The chemokine receptor CXCR3 also known as CD183 is a protein that plays an important role in immune responses. This receptor is a part of the G protein-coupled receptor (GPCR) family and weighs approximately 41 kDa. CXCR3 is expressed on activated T cells some B cells natural killer (NK) cells and certain subsets of dendritic cells. Its expression is mostly found in inflamed tissues and in conditions where the immune system is active such as infections or autoimmune diseases.
Biological function summary	CXCR3 is involved in directing the migration of immune cells to sites of inflammation. This receptor binds to specific chemokines—CXCL9 CXCL10 and CXCL11—that are produced in response to cytokines like IFN-gamma. CXCR3 does not function as part of a larger protein complex; instead it operates independently facilitating the trafficking and activation of its expressing cells. Its activity is pivotal in immune responses assisting in rapid mobilization and targeting of effector cells to needed areas.
Pathways	CXCR3 is a component of the chemokine signaling pathway which is important for leukocyte chemotaxis. Within this pathway CXCR3 interacts with other receptors and proteins that modulate immune responses such as CXCR4 and CCR5 which also mediate chemotactic migration of leukocytes. Moreover it plays a role in the Jak-STAT signaling pathway impacting gene transcription and cell survival particularly in response to inflammatory signals.
Associated diseases and disorders	CXCR3 is closely associated with autoimmune diseases like multiple sclerosis and rheumatoid arthritis due to its role in inflammation and immune cell recruitment. The receptor is also involved in cancer where its dysregulation can impact tumor growth and metastasis. CXCR3 through its interaction with chemokines like CXCL10 can influence the tumor microenvironment by affecting the infiltration and function of immune cells. Understanding these interactions can provide insights into therapeutic strategies targeting CXCR3 in these conditions.

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.

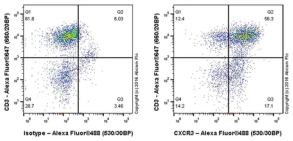
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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2 product images

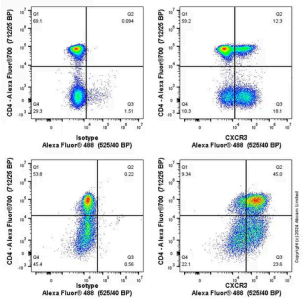


Flow Cytometry - Anti-CXCR3/CD183 antibody [EPR23845-44] (ab259865)

CXCR3/CD183 Flow Cytometry staining using rabbit Anti-CXCR3/CD183 antibody

Flow cytometric analysis of human peripheral blood mononuclear cells (PBMC) (treated with 200U/ml Interleukin-2 (IL-2) and 1µg/ml Phytohemagglutinin (PHA) for 6 days) labelling CXCR3 with ab259865 at 1/500 dilution (0.1µg) (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Cells were stained with rabbit IgG or ab259865. Then stained with anti-CD3 conjugated to Alexa Fluor® 647.

Gated on viable cells.



Flow Cytometry - Anti-CXCR3/CD183 antibody [EPR23845-44] (ab259865)

CXCR3/CD183 Flow Cytometry staining of PBMC using rabbit Anti-CXCR3/CD183 antibody

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) (top) or PBMCs treated with 5 µg/ml phytohaemagglutinin (PHA) for 48 hours (bottom), with ab259865 (right) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (left). PBMCs were incubated for 30 mins on ice in 1x PBS containing 10 µg/ml human IgG and 10 % normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab259865 or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (1x 10^6 in 100 µl at 1.0 µg/ml (1/2,000 dilution)) for 30 mins on ice. The cells were simultaneously stained with CD4.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 dilutionfor 30 mins on ice

Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on live cells.

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