abcam

ab288437

Anti-CXCR3 antibody [EPR25373-32]

Anti-CXCR3 antibody [EPR25373-32] (ab288437) is a rabbit monoclonal antibody detecting CXCR3 in **Western Blot, IP, IHC-P**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency

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: 59% 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	EPR25373-32
Purification technique	Affinity purification Protein A
Specificity	IHC application does not react with Mouse and Rat species.
Concentration	0.546 - 0.613 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell line
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Transfected cell line
Dilution info	-

Notes	-

IHC-P

Tested

Species	Transfected cell line
Dilution info	1/500
Notes	IHC application does not react with Mouse and Rat species.

Species	Human
Dilution info	1/500
Notes	IHC application does not react with Mouse and Rat species.

Not recommended

Species	Mouse
Dilution info	-
Notes	IHC application does not react with Mouse and Rat species.

Species	Rat
Dilution info	-
Notes	IHC application does not react with Mouse and Rat species.

ICC/IF

Not recommended

Species	Human, Rat, Mouse, Transfected cell line
Dilution info	-
Notes	-

Flow Cyt (Intra)

Not recommended

Species	Human, Mouse, Rat, Transfected cell line

Dilution info	-
Notes	-

Target data

See full target information CXCR3

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	Blue Ice
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

What is this antibody validated in?
Anti-CXCR3 antibody [EPR25373-32] (ab288437) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Immunoprecipitation (IP), Immunohistochemistry (IHC-P) in Human, Mouse, Rat samples.

What is the molecular weight of CXCR3?

Anti-CXCR3 [EPR25373-32] (ab288437) specifically detects a band for CXCR3 (UniProt: P49682) at a molecular weight of 40kDa.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 10µl. Discover our selection of trial-size antibodies.

Other related products
We have a range of other formats of antibody clone [EPR25373-32] also available for your convenience: ab288437, Carrier free - ab288446, PE - ab317883, APC - ab317919, Alexa Fluor® 488 - ab317959, Alexa Fluor® 594 - ab318000, Alexa Fluor® 555 - ab318042, Alexa Fluor® 647 - ab318084, Alexa Fluor® 750 - ab321546

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

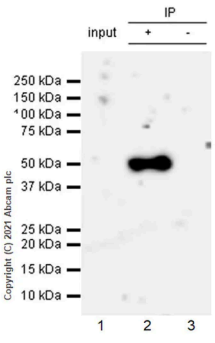
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



Immunoprecipitation - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

CXCR3 was immunoprecipitated from 0.35 mg HT-29 (human colorectal adenocarcinoma epithelial cell) whole cell lysate 10 ug with ab288437 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab288437 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: HT-29 (human colorectal adenocarcinoma epithelial cell) whole cell lysate 10 ug

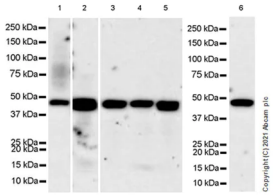
Lane 2: ab288437 IP in HT-29 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab288437 in HT-29 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes
All lanes:
Immunoprecipitation - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Predicted band size: 40 kDa



Western blot - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 3 minutes

All lanes:
Western blot - Anti-CXCR3 antibody [EPR25373-32] (ab288437) at 1/1000 dilution

Lane 1:
Human tonsil tissue lysate at 20 µg

Lane 2:
K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 3:
EL4 (mouse lymphoma T lymphocyte) whole cell lysate at 20 µg

Lane 4:
AR42J (rat pancreatic tumor epithelial cell) whole cell lysate at 20 µg

Lane 5:
GH3 (rat pituitary gland tumor epithelial cell) whole cell lysate at 20 µg

Lane 6:
Mouse thymus tissue lysate at 20 µg

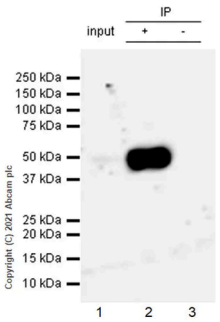
Secondary

Lane 1:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/2000 dilution

Lanes 2 - 6:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 40 kDa

Observed band size: 46 kDa



Immunoprecipitation - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

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Lane 1: K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate 10 ug

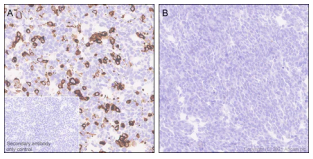
Lane 2: ab288437 IP in K-562 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab288437 in K-562 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes
All lanes:
Immunoprecipitation - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

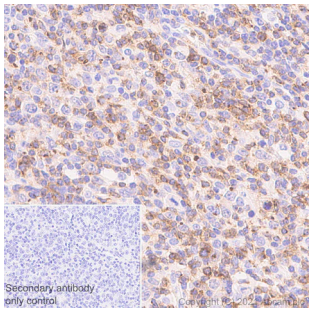
Predicted band size: 40 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T cells labelling CXCR3 with ab288437 at 1/500 (6.04 ug/ml) followed by a ready to use Leica DS9800 (BOND®, Polymer Refine Detection) was used. Positive staining on (A) HEK-293T cells transfected with a CXCR3 expression vector containing a his tag. No staining on (B) HEK-293T cells transfected with empty vector containing a his tag. The section was incubated with ab288437 for 30 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 Leica DS9800 (BOND®, Polymer Refine Detection) was used.

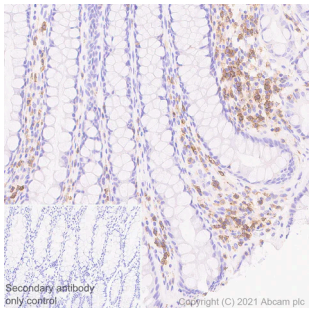
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Immunohistochemical analysis of paraffin-embedded human large B-cell lymphoma tissue labelling CXCR3 with ab288437 at 1/500 (1.208 ug/ml) followed by a ready to use Leica DS9800 (BOND®, Polymer Refine Detection) was used. Positive staining on human large B-cell lymphoma (PMID: 10627472). The section was incubated with ab288437 for 30 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 Leica DS9800 (BOND®, Polymer Refine Detection) was used.

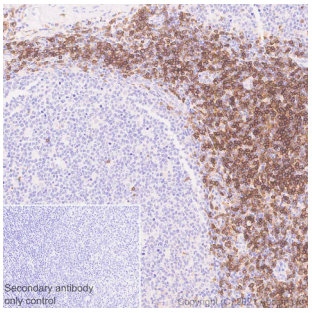
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling CXCR3 with ab288437 at 1/500 (1.208 ug/ml) followed by a ready to use Leica DS9800 (BOND®, Polymer Refine Detection) was used. Positive staining on human colon. The section was incubated with ab288437 for 30 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 Leica DS9800 (Bond®, Polymer Refine Detection) was used.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCR3 antibody [EPR25373-32] (ab288437)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labelling CXCR3 with ab288437 at 1/500 (1.208 ug/ml) followed by a ready to use Leica DS9800 (BOND®, Polymer Refine Detection) was used. Positive staining on human tonsil (PMID: 10627472). The section was incubated with ab288437 for 30 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 Leica DS9800 (BOND®, Polymer Refine Detection) was used.

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