abcam

ab290643

Anti-CXCL9 antibody [EPR26512-118]

Anti-CXCL9 antibody [EPR26512-118] (ab290643) is a rabbit monoclonal antibody detecting CXCL9 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human**.

- 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: 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	EPR26512-118
Purification technique	Affinity purification Protein A
Specificity	This antibody does not cross-react with CXCL10, CXCL11, or CXCL2 protein.
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CXCL9

Function	Cytokine that affects the growth, movement, or activation state of cells that participate in immune and inflammatory response. Chemotactic for activated T-cells. Binds to CXCR3.

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

What is this antibody validated in?
Anti-CXCL9 antibody [EPR26512-118] (ab290643) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of CXCL9?
Anti-CXCL9 [EPR26512-118] (ab290643) specifically detects a band for CXCL9 (UniProt: Q07325) at a molecular weight of 14kDa.

Other related products
We have a range of other formats of antibody clone [EPR26512-118] also available for your convenience: ab290643, Carrier free - ab290654, Alexa Fluor® 647 - ab308431, Alexa Fluor® 488 - ab308597

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	CXCL9 also known as MIG (monokine induced by gamma interferon) is a small cytokine protein with a molecular weight of approximately 13 kDa. CXCL9 exhibits strong chemotactic properties and is secreted by various cells including endothelial cells macrophages and fibroblasts upon stimulation by interferon-gamma. Its expression primarily occurs in inflamed tissues and is associated with immune responses. Researchers often use tools like a CXCL9 ELISA kit or CXCL9 test to measure its expression levels in biological samples aiding in understanding its role in various conditions.
Biological function summary	This cytokine plays a pivotal role in the immune system by regulating leukocyte trafficking. CXCL9 exerts its function through binding to the CXCR3 receptor attracting T cells towards sites of inflammation or infection. This interaction is significant in mediating immune surveillance and host defense. CXCL9 does not form part of a larger protein complex but its chemokine activity is critical for immune system coordination. Scientific studies often highlight its involvement through CXCL9 function and expression analysis.
Pathways	CXCL9 significantly influences the chemokine signaling pathway and the Th1-type adaptive immune response. Within these pathways it interacts closely with other chemokines like CXCL10 and CXCL11 which also bind to the CXCR3 receptor. These pathways highlight the coordinated mobilization of T cells during immune challenges and inflammation emphasizing how CXCL9 is often examined alongside these related chemokines in research settings.
Associated diseases and disorders	CXCL9 is notably associated with autoimmune diseases such as rheumatoid arthritis and inflammatory conditions like psoriasis. Its elevated expression is often observed in affected tissues contributing to disease pathogenesis through T cell migration and activation. In these contexts CXCL9 is frequently examined alongside other pro-inflammatory cytokines such as interferon-gamma and TNF-alpha which are known to modulate its expression and activity impacting disease progression and therapeutic strategies.

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.

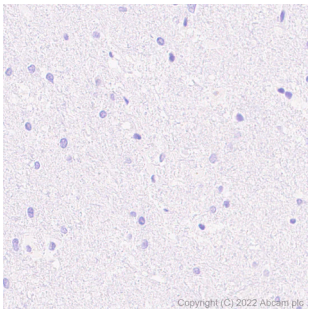
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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10 product images



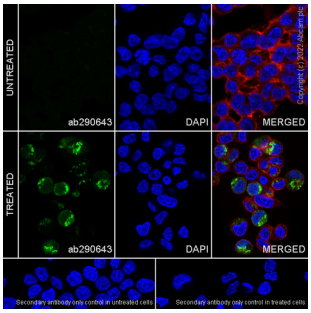
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CXCL9 antibody

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labelling CXCL9 with ab290643 at 1/100 (5.38 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Negative control: no staining on human cerebrum. The section was incubated with ab290643 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 LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

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

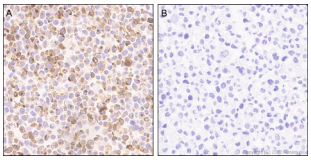
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Immunocytochemistry/ Immunofluorescence - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CXCL9 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized KATO III (Human stomach spherical) cells labelling CXCL9 with primary antibody anti-CXCL9 (ab290643) at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution. Confocal image showing increased cytoplasmic staining in KATO III cells treated with IFN gamma (human) (100 ng/ml) and TNF alpha (human) (100 ng/ml) for 16 hours. Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) (ab195889) was used to counterstain tubulin at 1/200 dilution. The nuclear counter stain is DAPI (blue).



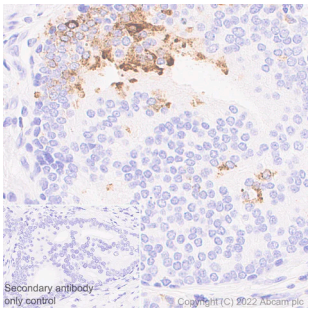
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CXCL9 antibody

Immunohistochemical analysis of paraffin-embedded Panel A THP-1 cell tissue labelling CXCL9 with ab290643 at 1/2000 (0.269 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on (A) THP-1 cells treated with a combination of IFN-γ (200ng/ml, 24h) and LPS (50ng/ml, 24h); no staining on (B) untreated THP-1 cells. The section was incubated with ab290643 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 LeicaDS9800 (Bond® Polymer Refine Detection) was used.

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

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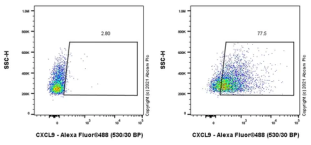
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CXCL9 antibody

Immunohistochemical analysis of paraffin-embedded Human prostate carcinoma tissue labelling CXCL9 with ab290643 at 1/100 (5.38 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. Positive staining on human prostate carcinoma. The section was incubated with ab290643 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 LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

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

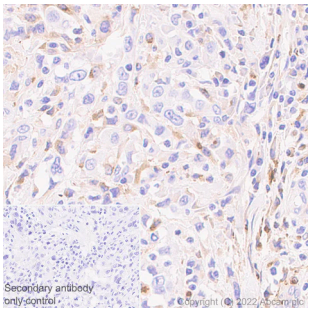
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Flow Cytometry (Intracellular) - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Flow Cytometry (Intracellular) staining using rabbit Anti-CXCL9 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde, 90% methanol THP-1 (Human monocytic leukemia monocyte) treated with 200ng/ml IFN gamma and 50ng/ml LPS for 24h (Right) labelling CXCL9 with ab290743 at 1/50 dilution/ Untreated control (Left). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as a secondary antibody.

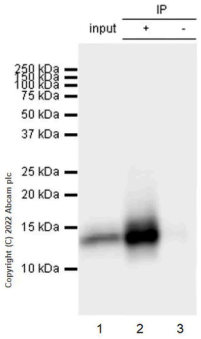


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CXCL9 antibody

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue labelling CXCL9 with ab290643 at 1/100 dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human lung carcinoma. The section was incubated with ab290643 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 LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

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



Immunoprecipitation - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 was immunoprecipitated from 0.35 mg KATO III (human gastric carcinoma) treated with 100ng/ml IFN gamma and 100 ng/ml TNF alpha for 16 hours whole cell lysate 10 ug with ab290643 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab290643 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: KATO III (human gastric carcinoma) treated with 100ng/ml IFN gamma and 100 ng/ml TNF alpha for 16 hours whole cell lysate 10 ug

Lane 2: ab290643 IP in KATO III treated with 100ng/ml IFN gamma and 100 ng/ml TNF alpha for 16 hours whole cell lysate

Lane 3:Rabbit monoclonal IgG (ab172730) instead of ab290643 in KATO III treated with 100ng/ml IFN gamma and 100 ng/ml TNF alpha for 16 hours whole cell lysate

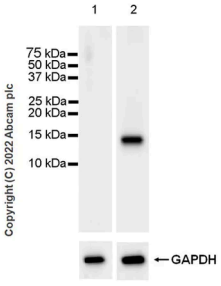
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3.25 seconds

All lanes:
Immunoprecipitation - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

Predicted band size: 14 kDa

Observed band size: 14 kDa



Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Western blot staining using rabbit Anti-CXCL9 antibody

Blocking and diluting buffers and concentration was 5% NFDM/TBST.
Exposure time: 7.75 seconds.

The expression of CXCL9 is upregulated in response to TNF gamma and LPS treatment (PMID:12946268, 20650898).

All lanes:
Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643) at 1/1000 dilution

Lane 1:
Untreated THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

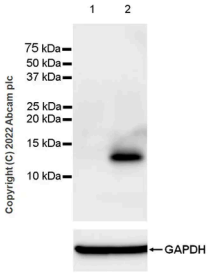
Lane 2:
THP-1 treated with 200ng/ml IFN gamma and 50 ng/ml LPS(Lipopolysaccharide) for 24 hours whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 14 kDa

Observed band size: 14 kDa



Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

CXCL9 Western blot staining using rabbit Anti-CXCL9 antibody

Blocking and diluting buffers and concentration was 5% NFDM/TBST.
Exposure time: 5.5 seonds.

The expression of CXCL9 is upregulated in response to IFN gamma and TNF alpha treatment (PMID:12946268, 20650898).

All lanes:
Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643) at 1/1000 dilution

Lane 1:
Untreated KATO III (human gastric carcinoma) whole cell lysate at 20 µg

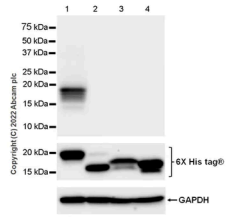
Lane 2:
KATO III treated with 100ng/ml IFN gamma and 100 ng/ml TNF alpha for 16 hours whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 14 kDa

Observed band size: 14 kDa



Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643)

Blocking and diluting buffers and concentration was 5% NFDM/TBST.
Exposure time: 10 seonds.

This antibody does not cross-react with CXCL10, CXCL11, or CXCL2 protein.

All lanes:
Western blot - Anti-CXCL9 antibody [EPR26512-118] (ab290643) at 1/1000 dilution

Lane 1:
HEK-293T (human embryonic kidney) cells transfected with a human CXCL9 expression vector containing a myc-His tag whole cell lysate at 4 µg

Lane 2:
HEK-293T cells transfected with a human CXCL10 expression vector containing a myc-His tag whole cell lysate at 20 µg

Lane 3:
HEK-293T cells transfected with a human CXCL11 expression vector containing a myc-His tag whole cell lysate at 40 µg

Lane 4:
HEK-293T cells transfected with a human CXCL2 expression vector containing a myc-His tag whole cell lysate at 20 µg

Secondary

All lanes:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 14 kDa

Observed band size: 14 kDa

Exposure time: 10s

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