abcam

ab277639

Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23999-5
Purification technique	Affinity purification Protein A
Concentration	1.05 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab277639 is the carrier-free version of ab263442.

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	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

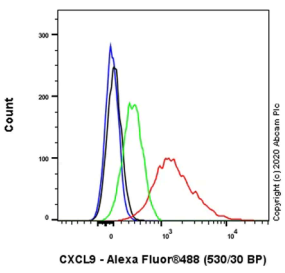
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

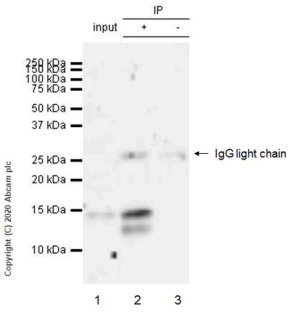


Flow Cytometry (Intracellular) - Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free (ab277639)

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

This data was developed using ab263442, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized THP-1 (human monocytic leukemia monocyte) treated with 100ng/ml IFN-gamma and 1ug/ml LPS (Lipopolysaccharide) for 48 hours (Red)/ Untreated control (Green) cells labelling CXCL9 with ab263442 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free (ab277639)

This data was developed using ab263442, the same antibody clone in a different buffer formulation.
CXCL9 was immunoprecipitated from 0.35 mg THP-1(human monocytic leukemia monocyte) (treated with 100ng/ml IFN-γ and 1ug/ml LPS (Lipopolysaccharide) for 48 hours) whole cell lysate with ab263442 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab263442 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: THP-1 treated with 100ng/ml IFN-γ and 1ug/ml LPS (Lipopolysaccharide) for 48 hours, whole cell lysate 10 ug

Lane 2: ab263442 IP in THP-1 treated with 100ng/ml IFN-γ and 1ug/ml LPS(Lipopolysaccharide) for 48 hours whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab263442 in THP-1 treated with 100ng/ml IFN-γ and 1ug/ml LPS(Lipopolysaccharide) for 48 hours whole cell lysate

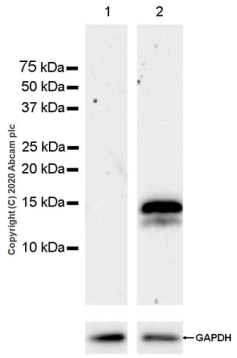
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

All lanes:
Immunoprecipitation - Anti-CXCL9 antibody [EPR23999-5] (ab263442)

Predicted band size: 14 kDa

Observed band size: 13 kDa, 14 kDa



Western blot - Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free (ab277639)

CXCL9 Western blot staining using rabbit Anti-CXCL9 antibody

This data was developed using ab263442, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile is consistent with what has been described in the literature (PMID: 15154616, 22973274).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-CXCL9 antibody [EPR23999-5] (ab263442) at 1/1000 dilution

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

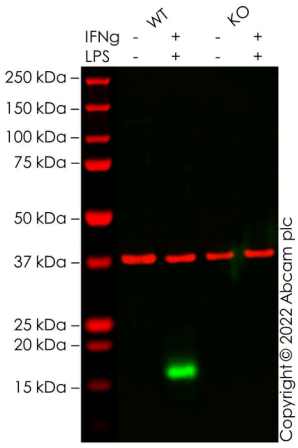
Lane 2:
THP-1 (treated with 200 ng /ml IFN-gamma and 50 ng/ml LPS (Lipopolysaccharide) for 24 hours), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 14 kDa

Observed band size: 13 kDa, 14 kDa



Western blot - Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free (ab277639)

CXCL9 Western blot staining using rabbit Anti-CXCL9 antibody

False colour image of Western blot: Anti-CXCL9 antibody [EPR23999-5] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab263442 was shown to bind specifically to CXCL9. A band was observed at 17 kDa in treated wild-type THP-1 cell lysates with no signal observed at this size in CXCL9 knockout cell line ab282347 (knockout cell lysate ab283019). To generate this image, wild-type and CXCL9 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-CXCL9 antibody [EPR23999-5] (ab263442) at 1/1000 dilution

Lane 1:
Wild-type THP-1 untreated control cell lysate at 20 µg

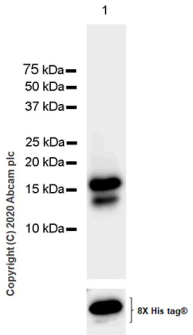
Lane 2:
Wild-type THP-1 treated IFNg (200 ng/mL, 24 h) + LPS (50 ng/mL, 24 h) cell lysate at 20 µg

Lane 3:
CXCL9 knockout THP-1 untreated control cell lysate at 20 µg

Lane 4:
CXCL9 knockout THP-1 treated IFNg (200 ng/mL, 24 h) + LPS (50 ng/mL, 24 h) cell lysate at 20 µg

Performed under reducing conditions.

Observed band size: 17 kDa



Western blot - Anti-CXCL9 antibody [EPR23999-5] - BSA and Azide free (ab277639)

This data was developed using ab263442, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile is consistent with what has been described in the literature (PMID: 15154616, 22973274).

Exposure time: 5.5 seconds.

All lanes:
Western blot - Anti-CXCL9 antibody [EPR23999-5] (ab263442) at 1/1000 dilution

All lanes:
His-tagged human purified recombinant full-length protein CXCL9, 10 ng

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 14 kDa

Observed band size: 13 kDa, 14 kDa

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