abcam

ab317569

Anti-CXCL2 antibody [EPR28746-89]

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	EPR28746-89
Purification technique	Affinity purification Protein A
Concentration	0.502 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Dot

Tested

Species	Recombinant fragment - Mouse
Dilution info	1/1000
Notes	-

Expected

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

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Recombinant fragment - Mouse, Human, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Human, Rat, Recombinant fragment - Mouse

Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Not recommended

Species	Human, Recombinant fragment - Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Recombinant fragment - Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30

Notes	-

Not recommended

Species	Recombinant fragment - Mouse, Human, Rat
Dilution info	-
Notes	-

Target data

See full target information CXCL2

Function	Produced by activated monocytes and neutrophils and expressed at sites of inflammation. Hematoregulatory chemokine, which, in vitro, suppresses hematopoietic progenitor cell proliferation. GRO-beta(5-73) shows a highly enhanced hematopoietic activity.

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 CXCL2 protein also known as macrophage inflammatory protein 2 (MIP-2) or KC in the mouse model functions as a chemokine. It weighs approximately 7.8 kDa and is part of the CXC chemokine family. CXCL2 is mainly expressed in macrophages neutrophils and certain epithelial cells. It plays an important role in mediating the migration of these cells to sites of inflammation or injury.
Biological function summary	CXCL2 attracts and activates neutrophils as part of the innate immune response. It acts independently not as part of a larger complex to provoke a chemotactic response guiding neutrophils to areas of tissue injury. CXCL2 also promotes the release of other cytokines and enzymes that contribute to inflammation. Its activity is mediated through its interaction with receptors like CXCR2 on target cell surfaces.
Pathways	CXCL2 is involved in inflammatory signaling and leukocyte migration. It holds importance in the chemokine signaling pathway which regulates leukocyte trafficking. CXCL2 interacts with proteins like CXCR2 influencing the inflammation process by activating downstream kinases and other signal transduction molecules such as mitogen-activated protein kinases (MAPKs).
Associated diseases and disorders	CXCL2 is connected to inflammatory conditions and diseases like sepsis and inflammatory bowel disease (IBD). Elevated levels of CXCL2 can enhance the inflammatory response which is linked to the progression of these conditions. The protein is also associated with tumor necrosis factor-alpha (TNF-alpha) which amplifies inflammation and tissue damage during disease processes.

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.

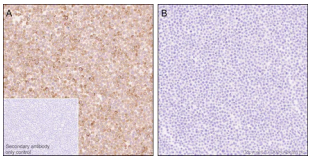
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
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8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

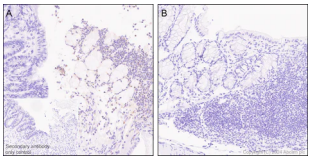
Immunohistochemical analysis of paraffin-embedded (A) Raw 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with lipopolysaccharide (LPS, 100 ng/mL) and Brefeldin A (300 ng/mL) for 4 hours. (B) Untreated Raw 264.7. tissue labeling CXCL2 with ab317569 at 1/500 (0.986 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in (A) Raw 264.7 treated with lipopolysaccharide (LPS, 100 ng/mL) and Brefeldin A (300ng /mL) for 4 hours. No staining in (B) untreated Raw 264.7.
The section was incubated with ab317569 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).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

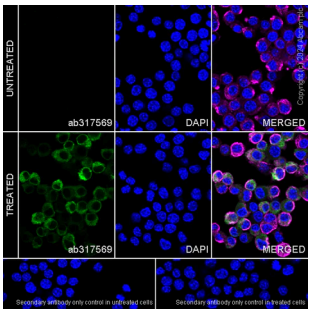
Immunohistochemical analysis of paraffin-embedded (A) Mouse colon of Crohn's disease model. (B) Mouse normal colon. tissue labeling CXCL2 with ab317569 at 1/500 (0.986 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in mouse colon of Crohn's disease model, no staining in mouse normal colon.
The section was incubated with ab317569 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).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



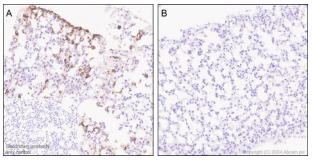
Immunocytochemistry/ Immunofluorescence - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Raw 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling CXCL2 with ab317569 at 1/100 (4.93 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in Raw 264.7 cells (shown in green) treated with lipopolysaccharide (LPS, 100 ng/ml) and Brefeldin A (300ng/ml) for 4 hours. The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

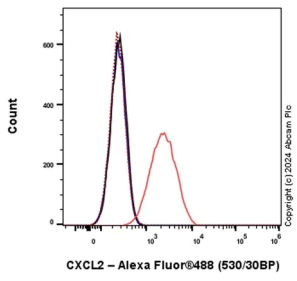
Immunohistochemical analysis of paraffin-embedded (A) Mouse lung treated with lipopolysaccharide (LPS, 1 ug/mL) and Brefeldin A (1 ug/mL) for 16 hours. (B) Untreated mouse lung. tissue labeling CXCL2 with ab317569 at 1/500 (0.986 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in mouse lung treated lipopolysaccharide (LPS, 1 ug/mL) and Brefeldin A (1 ug/mL) for 16 hours. Nearly no staining in (B) untreated mouse lung.
The section was incubated with ab317569 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).

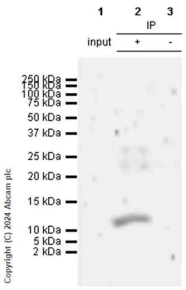
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 100ng/mL LPS and 300ng/mL BFA for 4h (Red) / Untreated control (Dotted red) cells labelling CXCL2 with ab317569 at 1/500 dilution (0.1ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

CXCL2 was immunoprecipitated from 0.35 mg RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate with ab317569 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab317569 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate
Lane 2: ab317569 IP in RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab317569 in RAW 264.7 treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate

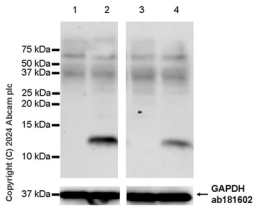
All lanes:
Immunoprecipitation - Anti-CXCL2 antibody [EPR28746-89] (ab317569) at 1/30 dilution

All lanes:
RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate at 3 µg

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Western blot - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

CXCL2 Western blot staining using rabbit Anti-CXCL2 antibody

The expression of CXCL2 is upregulated in response to LPS treatment (PMID: 31852751).

The identity of the bands between 37 kDa and 75 kDa are unknown.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-CXCL2 antibody [EPR28746-89] (ab317569) at 1/1000 dilution

Lane 1:
Untreated RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 80 µg

Lane 2:
RAW 264.7 treated with 100ng/mL LPS and 300ng/ml BFA for 4h whole cell lysate at 80 µg

Lane 3:
Untreated J774A.1 (mouse reticum cell sarcoma monocyte/macrophage) whole cell lysate at 80 µg

Lane 4:

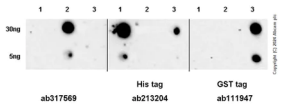
J774A.1 treated with 100ng/mL LPS for 3h, 300ng/ml BFA was then added for additional 3h whole cell lysate at 80 µg

Secondary

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

Observed band size: 11 kDa, 36 kDa

Exposure time: 180s



Dot Blot - Anti-CXCL2 antibody [EPR28746-89] (ab317569)

Dot blot analysis of CXCL2 using ab317569 at 1:1000 (0.493 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution.

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

This antibody does not cross-react with mouse CXCL1 and CLCX3.

In dot blot, anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

In dot blot, anti-GST antibody [EPR4236] (ab111947) (1:1000) staining at 1/1000 dilution.

All lanes:
Dot Blot - Anti-CXCL2 antibody [EPR28746-89] (ab317569) at 1/1000 dilution

Lane 1:
His-tagged mouse CXCL1 recombinant protein

Lane 2:
No tagged mouse CXCL2 recombinant protein

Lane 3:
His/GST-tagged mouse CXCL3 recombinant protein

Secondary

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

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