abcam

ab305100

Anti-CXCL5 antibody [EPR23928-217]

Anti-CXCL5 antibody [EPR23928-217] is a Rabbit Monoclonal antibody that is used in CXCL5 Flow Cytometry (Intra), ICC/IF, IP, Western Blot. Suitable for Human samples.

CXCL5, also known as C-X-C motif chemokine ligand 5 is a chemokine involved in the recruitment and activation of immune cells, and its dysregulation has been linked to various aspects of tumor progression, including metastasis and angiogenesis.CXCL5 contributes to the formation of an immunosuppressive tumor microenvironment. Monocytic MDSCs (macrophages) can be recruited into the tumour microenvironment by CCL2. The CXCL5–CXCR2 and CXCL12–CXCR4 signalling pathways are also reported to be involved in MDSC trafficking in a breast tumour mouse model. CXCL5 has been identified as a potential prognostic marker in certain cancers.

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	EPR23928-217
Purification technique	Affinity purification Protein A
Concentration	0.506 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

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

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

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
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	-

Target data

See full target information CXCL5

Function	Involved in neutrophil activation. In vitro, ENA-78(8-78) and ENA-78(9-78) show a threefold higher chemotactic activity for neutrophil granulocytes.

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 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.

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.

Supplementary info

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

Activity summary	CXCL5 also known as LIX (Liposaccharide-induced CXC chemokine) is a small cytokine belonging to the CXC chemokine family. It plays a significant role in immunological responses by acting as a chemoattractant for neutrophils. CXCL5 has a molecular mass of around 12 kDa. The protein is mainly expressed in neutrophils epithelial cells and endothelial cells. It is often studied alongside its competitors in different therapeutic and diagnostic contexts.

Biological function summary	CXCL5 affects inflammation and the immune response by modulating neutrophil recruitment to sites of infection or injury. It is a part of the larger network of chemokines that direct leukocyte movement throughout the body. While CXCL5 does not form a complex in a traditional sense it does interact dynamically with CXCR2 receptor to exert its effects. These interactions are pivotal to the protein's role in orchestrating the immune system's response to diverse stimuli.
Pathways	CXCL5 plays a part in the chemokine signaling pathway and the inflammatory response pathway. These pathways are important in mediating immune surveillance and inflammation. CXCL5 through these pathways has a strong connection to other CXC family proteins like CXCL1 and the receptor CXCR2 which allows for a coordinated response during immune challenges and recovery processes.
Associated diseases and disorders	CXCL5 is relevant in the context of chronic inflammatory disorders such as rheumatoid arthritis and cancer specifically its role in tumor-related inflammation. In these conditions CXCL5 is linked to the exacerbation of inflammatory states and promotion of tumor growth via angiogenesis. The protein's interactions with CXCR2 play a significant role in these disease processes representing potential therapeutic targets for managing inflammation and modulating cancer progression.

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

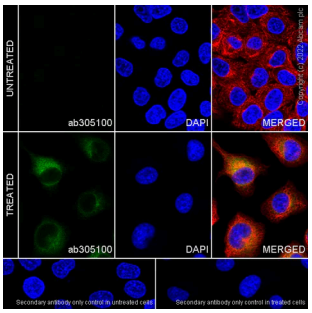
We do not recommend this combination. It is not covered by our product promise.

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.

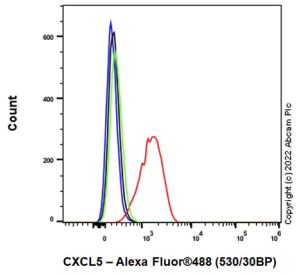
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-CXCL5 antibody [EPR23928-217] (ab305100)

CXCL5 Immunocytochemistry/ Immunofluorescence staining of A549 (human lung carcinoma epithelial cell) using rabbit Anti-CXCL5 antibody

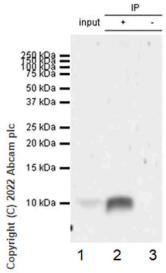
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A549 (human lung carcinoma epithelial cell) cells labelling CXCL5 with ab305100 at 1/500 (1.012 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing increased cytoplasmic staining in A549 cells treated with starved overnight, then add TPA (10 nM), TNF alpha (10 ng/ml) and BSA (0.1%) for 24 h and treated with BFA (300 ng/ml) for another 3 h. The image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 ug/ml dilution (Red). 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.



Flow Cytometry (Intracellular) - Anti-CXCL5 antibody [EPR23928-217] (ab305100)

CXCL5 Flow Cytometry (Intracellular) staining using rabbit Anti-CXCL5 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A549 (human lung carcinoma epithelial cell) treated with 10ng/ml TNF alpha and 10nM TPA and 0.1% BSA for 24 hours, then add 300ng/ml BFA for another 3 hours (Red) / Untreated control (Green) cells labelling CXCL5 with ab305100 at 1/500 dilution (0.1ug) (Red) and Green (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). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-CXCL5 antibody [EPR23928-217] (ab305100)

CXCL5 was immunoprecipitated from 0.35 mg A549 (human lung carcinoma epithelial cell) starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate 10 µg with ab305100 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab305100 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution. Lane 1: A549 (human lung carcinoma epithelial cell) starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate 10 µg

Lane 2: ab305100 IP in A549 starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab305069 in A549 starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate

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

Exposure time: 3 minutes.
All lanes:
Immunoprecipitation - Anti-CXCL5 antibody [EPR23928-217] (ab305100) at 1/1000 dilution

Lane 1:
A549 (human lung carcinoma epithelial cell) starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole

Lane 2:
ab305100 IP in A549 starved overnight, then treated with 10 ng/ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate

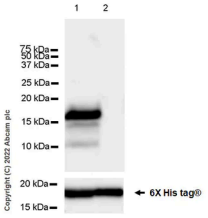
Secondary

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

Predicted band size: 12 kDa

Observed band size: 12 kDa

Exposure time: 3min



Western blot - Anti-CXCL5 antibody [EPR23928-217] (ab305100)

Blocking and diluting buffer and concentration: 5% NFDM/TBST This antibody does not cross-react with human CXCL6. Exposure time: 37 seconds
All lanes:
Western blot - Anti-CXCL5 antibody [EPR23928-217] (ab305100) at 1/1000 dilution

Lane 1:
HEK-293T cells transfected with a human CXCL5 expression vector containing a myc-his tag, then treated with 600 /ml BFA (ab120299) for 3h, whole cell lysate at 20 µg

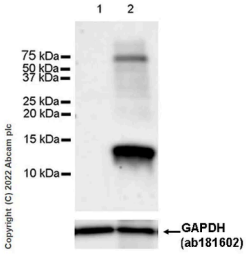
Lane 2:
HEK-293T cells transfected with a human CXCL6 expression vector containing a myc-his tag, then treated with 600 /ml BFA (ab120299) for 3h, whole cell lysate at 20 µg

Secondary

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

Observed band size: 16 kDa

Exposure time: 37s



Western blot - Anti-CXCL5 antibody [EPR23928-217] (ab305100)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The expression of CXCL5 is upregulated in response to TNF-a and PMA treatment (PMID: 9057843; PMID: 23922745). The identity of the higher MW band at approximately 70 kDa is unknown. Exposure time: 125 seconds
All lanes:
Western blot - Anti-CXCL5 antibody [EPR23928-217] (ab305100) at 1/1000 dilution

Lane 1:
A549 (human lu carcinoma epithelial cell) starved overnight, whole cell lysate at 20 µg

Lane 2:
A549 starved overnight, then treated with /ml TNF alpha, 10 nM TPA (ab120297), and 0.1% BSA for 24h, then with 300 ng/ml BFA added for 3h, whole cell lysate at 20 µg

Secondary

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

Observed band size: 12 kDa

Exposure time: 125s

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