abcam

ab243097

Anti-CXCL5 + CXCL6 antibody [EPR22310-196]

Recombinant | RabMAb | KO Validated

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	EPR22310-196
Purification technique	Affinity purification Protein A
Concentration	0.512 - 0.522 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	-

Species	Recombinant fragment - Human

Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Recombinant fragment - Human
Dilution info	-

Notes	-

IP

Not recommended

Species	Human, Recombinant fragment - Human
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

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	C-X-C motif chemokine ligands 5 and 6 (CXCL5 and CXCL6) also known as ENA-78 and GCP-2 respectively are small proteins with a molecular mass of approximately 12 kDa. These chemokines belong to the CXC chemokine family and play key roles as signaling proteins. CXCL5 and CXCL6 are mainly expressed in neutrophils epithelial cells and to some extent in macrophages. When they bind to their receptor CXCR2 they induce chemotaxis guiding immune cells toward sites of inflammation or injury.
Biological function summary	They coordinate immune response by mediating neutrophil recruitment to inflammatory sites. CXCL5 and CXCL6 often work as a team binding CXCR2 and aiding in protective tissue responses. Their roles extend further as they partake in triggering angiogenesis the formation of new blood vessels under physiological or pathological conditions such as wound healing or cancer. These activities imply their involvement in complex cellular networks and interactions.
Pathways	The involvement of CXCL5 and CXCL6 arises prominently in the NF-kB pathway and the MAPK signaling pathway. These pathways integral to immune and inflammatory responses reflect the chemokines' interaction with proteins like IL-8 and TNF-alpha emphasizing their importance in host defense mechanisms and inflammatory signaling cascades. Their ability to engage with these pathways demonstrates an essential role in modulating the intensity and duration of inflammatory responses.
Associated diseases and disorders	CXCL5 and CXCL6 relate to conditions such as cancer and rheumatoid arthritis. In cancer these chemokines can enhance tumor progression by increasing angiogenesis and attracting cells that promote tumor growth. Similarly in rheumatoid arthritis their overexpression correlates with joint inflammation and tissue damage. Proteins like VEGF-A connected to these chemokines further underline their association with pathological angiogenesis and inflammatory process regulation in disease states.

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.

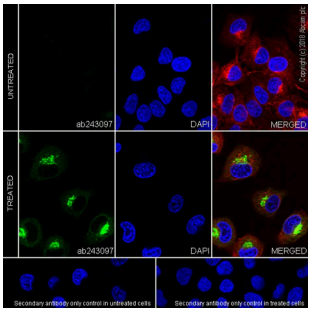
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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5 product images

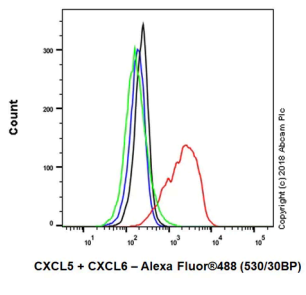


Immunocytochemistry/ Immunofluorescence - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097)

CXCL5 + CXCL6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CXCL5 + CXCL6 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A549 (human lung carcinoma cell line) cells labeling CXCL5 + CXCL6 with ab243097 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in A549 cells treated with TNF alpha (10ng/ml 24h), PMA (10nM 24h) and BSA (0.1% 24h) is observed. Tubulin was stained using the Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594, ab195889) at 1/200 dilution (Red).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is AlexaFluor®488 Goat anti-Rabbit secondary (ab150077) at 1/1000 dilution.

The expression of CXCL5 and CXCL6 is induced by TNF-a and PMA treatment. (PMID: 9057843; 23922745).

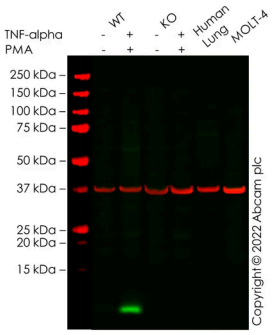


Flow Cytometry (Intracellular) - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097)

CXCL5 + CXCL6 Flow Cytometry (Intracellular) staining using rabbit Anti-CXCL5 + CXCL6 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized A549 (human lung carcinoma cell line) cell line that was serum starved for 4h, then treated with TNF alpha (10ng/ml 24h), PMA (10nM 24h) and BSA (0.1% 24h) (Red) / Untreated control (Green) labeling CXCL5 + CXCL6with ab243097 at 1/500 dilution, compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (Black) and an unlabeled control (cells

without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488)at 1/2000 dilution was used as the secondary antibody.
The expression of CXCL5 and CXCL6 is induced by TNF-a and PMA. (PMID: 9057843; 23922745).



Western blot - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097)

CXCL5 + CXCL6 Western blot staining using rabbit Anti-CXCL5 + CXCL6 antibody

False colour image of Western blot: Anti-CXCL5 + CXCL6 antibody [EPR22310-196] 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, ab243097 was shown to bind specifically to CXCL5 + CXCL6. A band was observed at 12 kDa in treated wild-type A549 cell lysates with no signal observed at this size in CXCL6 knockout cell line ab275838 (knockout cell lysate ab275812). To generate this image, wild-type and CXCL6 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % 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-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097) at 1/1000 dilution

Lane 1:
Wild-type A549 Untreated Control cell lysate at 20 µg

Lane 2:
Wild-type A549 Treated TNFa (10 ng/mL, 24 h) + PMA (10 nM, 24 h) cell lysate at 20 µg

Lane 3:
Untreated control at 20 µg

Lane 4:
Treated TNFa (10 ng/mL, 24 h) + PMA (10 nM, 24 h) cell lysate at 20 µg

Lane 5:
Human Lung cell lysate at 20 µg

Lane 6:
MOLT-4 cell lysate at 20 µg

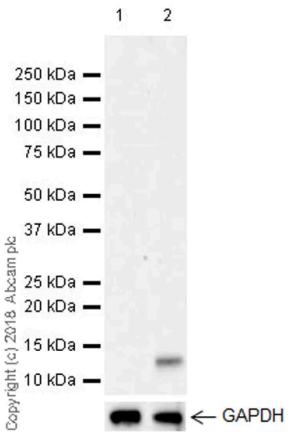
Secondary

All lanes:
Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 12 kDa

Observed band size: 12 kDa



Western blot - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097)

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.
The expression of CXCL5 and CXCL6 is induced by TNF-a and PMA. (PMID 9057843; PMID: 23922745).

All lanes:
Western blot - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097) at 1/500 dilution

Lane 1:
A549 (human lung carcinoma cell line) starved overnight, whole cell lysate at 10 µg

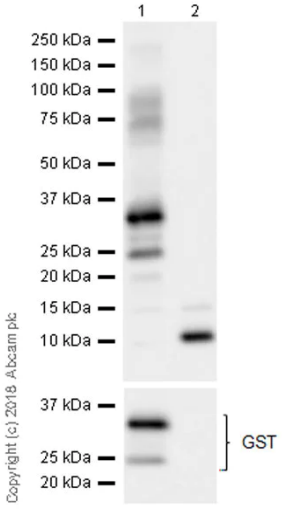
Lane 2:
A549 was starved overnight, then treated with 10ng/ml TNF-a, 10nM Phorbol-12-myristate-13-acetate (PMA) and 0.1% BSA for 24 hours, whole cell lysate at 10 µg

Secondary

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

Predicted band size: 12 kDa

Exposure time: 3min



Western blot - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097)

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.
All lanes:
Western blot - Anti-CXCL5 + CXCL6 antibody [EPR22310-196] (ab243097) at 1/1000 dilution

Lane 1:
His-GST-tagged human CXCL5 recombinant protein (aa37-114) 10 ng

Lane 2:
Human CXCL6 recombinant protein (aa40-114) without tag 10 ng

Secondary

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

Predicted band size: 12 kDa

Exposure time: 3s

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