abcam

ab220431

Anti-GRO gamma antibody [EPR21759-11]

Recombinant | RabMAb

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	EPR21759-11
Purification technique	Affinity purification Protein A
Concentration	0.5105 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500

Notes	-

Expected

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

Target data

See full target information Cxcl3

Function	Ligand for CXCR2. Has chemotactic activity for neutrophils. May play a role in inflammation and exert its effects on endothelial cells in an autocrine fashion.

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	GRO gamma also known as CXCL3 is a chemokine with a molecular weight of approximately 7.9 kDa. It is a small protein belonging to the CXC chemokine family. GRO gamma is expressed in numerous tissues including epithelial cells fibroblasts and several leukocytes. This protein plays a significant role in chemotactic signaling drawing neutrophils to sites of inflammation and infection acting as both a signal and effector molecule in immune response. Researchers often use CXCL3 ELISA kits and GRO protein assays to quantify its expression levels in biological samples.
Biological function summary	GRO gamma functions as a chemokine that guides neutrophils by binding to its receptor CXCR2. It participates in inflammatory processes and is produced in response to stimuli such as bacterial products and pro-inflammatory cytokines. GRO gamma together with its close family members forms a network facilitating the immune cell recruitment and activation at infection sites. Also this chemokine is included in larger chemokine complexes influencing not just immune cells but also modulating angiogenesis and cellular matrix restructuring.
Pathways	GRO gamma significantly contributes to the chemokine signaling pathway and the NF-kB signaling pathway. In these pathways it interacts tightly with proteins like CXCR2 which is essential for the signaling cascade that results in immune cell migration. It also engages with the MAPK pathways impacting cell proliferation and apoptosis. These involvements make GRO gamma vital for orchestrating the inflammation response in humans.
Associated diseases and disorders	GRO gamma is linked to chronic inflammatory conditions and cancer. Elevated levels of GRO gamma have been observed in rheumatoid arthritis where its interaction with CXCR2 exacerbates inflammation and tissue damage. In cancer particularly in colorectal cancer GRO gamma plays a role in tumor progression by promoting angiogenesis and cell proliferation interacting with VEGF and other cytokines. Understanding its functions and relationships opens potential avenues for therapeutic interventions targeting chronic diseases and cancer.

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.

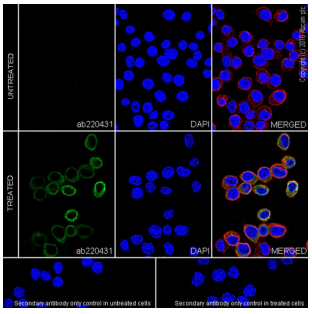
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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

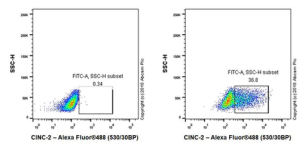


Immunocytochemistry/ Immunofluorescence - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

GRO gamma Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GRO gamma antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized RAW264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cells treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours or untreated labeling GRO gamma with ab220431 at 1/1000 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 RAW 264.7 cells treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

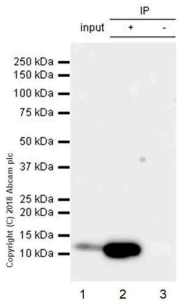
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

GRO gamma Flow Cytometry (Intracellular) staining using rabbit Anti-GRO gamma antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized RAW264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell line treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours (Right panel) or untreated (Left panel) labeling GRO gammawith ab220431 at 1/500 dilution. Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
Note: CINC-2 and GRO gamma are alternative names for the same target.



Immunoprecipitation - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

GRO gamma was immunoprecipitated from 0.35 mg of RAW264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours, whole cell lysate with ab220431 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab220431 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.
Lane 1: RAW264.7 treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours, whole cell lysate 10 µg (Input).

Lane 2: ab220431 IP in RAW264.7 treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours, whole cell lysate.

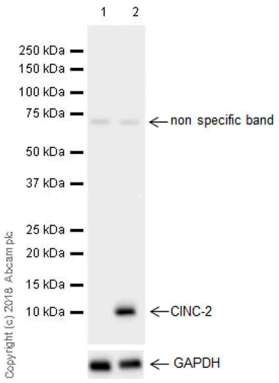
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab220431 in RAW264.7 treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300 ng/ml Brefeldin A (BFA) added after 3 hours, whole cell lysate.

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

Exposure time: 30 seconds.

All lanes:
Immunoprecipitation - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

Predicted band size: 11 kDa



Western blot - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

GRO gamma Western blot staining using rabbit Anti-GRO gamma antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
The expression of CINC-2 increased LPS treatment of macrophages (PMID: 9576061).

Note: CINC-2 and GRO gamma are alternative names for the same target.

All lanes:
Western blot - Anti-GRO gamma antibody [EPR21759-11] (ab220431) at 1/1000 dilution

Lane 1:
Untreated RAW264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Lane 2:
RAW264.7 treated with 100 ng/ml lipopolysaccharide (LPS) for 6 hours, with 300ng/ml Brefeldin A (BFA) added after 3 hours whole cell lysate at 10 µg

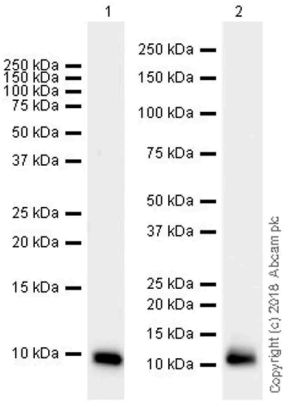
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Predicted band size: 11 kDa

Observed band size: 11 kDa

Exposure time: 3s



Western blot - Anti-GRO gamma antibody [EPR21759-11] (ab220431)

Exposure time : Lane 1: 15 seconds; Lane 2: 3 seconds.
Blocking/Dilution buffer: 5% NFDM/TBST.

Observed MW : 9 kDa (lane 1), 11 kDa (lane 2).

The molecular mass observed is consistent with what has been described in the literature (PMID: 12508094).

Note: CINC-2 and GRO gamma are alternative names for the same target.

All lanes:
Western blot - Anti-GRO gamma antibody [EPR21759-11] (ab220431) at 1/1000 dilution

Lane 1:
Rat CINC-2 recombinant protein (aa33-100) at 0.01 µg

Lane 2:
Rat lung primary cell supernatant at 10 µL

Secondary

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

Lane 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Predicted band size: 11 kDa

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