abcam

ab206429

Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275]

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	EPR19900-275
Purification technique	Affinity purification Protein A
Concentration	0.631 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	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/600
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CCL3

Function	Monokine with inflammatory and chemokinetic properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV).

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	MIP-1 alpha also known as CCL3 and MIP-1 beta known as CCL4 are key chemokines involved in the immune response. These proteins have a molecular mass of approximately 8 to 10 kDa. They are secreted by various cells including macrophages dendritic cells and lymphocytes. MIP-1 alpha and MIP-1 beta are part of the CC chemokine family and are secreted as monomers that bind to specific receptors on the surface of target cells attracting and activating them during inflammation and immune responses.
Biological function summary	These chemokines play significant roles in the recruitment and activation of leukocytes to sites of infection or injury. They are important elements in the immune defense system and help to orchestrate the movement and coordination of immune cells. MIP-1 alpha and MIP-1 beta function in synergy with other chemokines and cytokines enhancing the body's ability to respond to pathogens. While they do not form part of a larger complex their interaction with chemokine receptors like CCR1 CCR4 and CCR5 is critical for their function.
Pathways	MIP-1 alpha and MIP-1 beta participate in inflammatory and immune pathways. They are key mediators in the chemokine signaling pathway linked especially with the activation of the MAPK and NF-kB pathways. These chemokines work closely

with related chemokines such as CCL5 (RANTES) and cytokines like TNF-alpha amplifying the body's response to immune challenges.

Associated diseases and disorders

MIP-1 alpha and MIP-1 beta have connections to several pathological conditions particularly inflammatory diseases and HIV. Their levels often increase in diseases like rheumatoid arthritis reflecting their role in inflammatory processes. In the context of HIV infection these chemokines inhibit viral entry by blocking the CCR5 receptor which is important for some strains of the virus. This highlights their therapeutic potential in designing treatments targeting HIV alongside other inflammatory conditions.

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

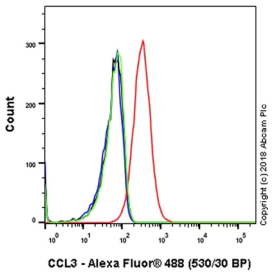
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

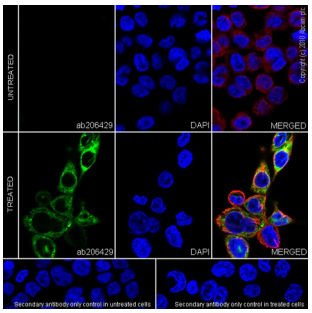


Flow Cytometry (Intracellular) - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429)

MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 Flow Cytometry (Intracellular) staining using rabbit Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 0.1% Tween 20 permeabilized THP-1 (human monocytic leukemia cell line) (treated with 80nM TPA overnight, then treated with 100ng/ml LPS for 3h and together with 300ng/ml BFA for another 3 hr) (red) or

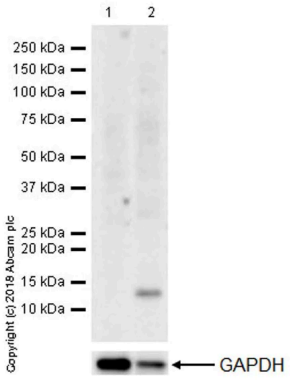
untreated (green) cells labeling Macrophage Inflammatory Protein 1 alpha / CCL3 with ab206429 at 1/600 dilution compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429)

MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (human monocytic leukemia cell line) cells labeling Macrophage Inflammatory Protein 1 alpha / CCL3 with ab206429 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 THP-1 cells treated with TPA (80nM overnight), then treated with 100ng/ml LPS for 3h and together with 300ng/ml BFA for another 3h. The nuclear counterstain is DAPI (blue). Tubulin is detected with 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, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Western blot - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429)

MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 Western blot staining using rabbit Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429) at 1/1000 dilution

Lane 1:
Untreated THP-1 (human monocytic leukemia cell line) whole cell lysate at 10 µg

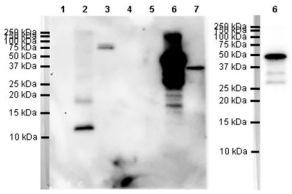
Lane 2:
THP-1 (1 treated with 80nM TPA overnight, then 100 ng/ml LPS for 3 hours and then 300 ng/ml Brefeldin A was added for the last 3 hours) whole cell lysate at 10 µg

Secondary

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

Observed band size: 12 kDa

Exposure time: 3min



Western blot - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429)

MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 Western blot staining using rabbit Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody

Exposure time:
Lanes 1-7 (left image): 180 seconds
Lane 6 (right image): 5 seconds
All lanes:
Western blot - Anti-MIP-1 alpha/CCL3 + CCL4/MIP-1 beta + CCL3L1 + CCL4L1 antibody [EPR19900-275] (ab206429) at 1/1000 dilution

Lane 1:
His-tagged mouse CCL3 Recombinant Protein

Lane 2:
His-tagged human CCL3 Recombinant Protein

Lane 3:
His-tagged human CCL4 Recombinant Protein

Lanes 4 - 5:
His-tagged human CCL18 Recombinant Protein

Lane 6:
GST-tagged human CCL3L1 Recombinant Protein

Lane 7:
GST-tagged human CCL4L1 Recombinant Protein

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