abcam

ab222926

Anti-IL-18 antibody [EPR19954] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR19954
Purification technique	Affinity purification Protein A
Concentration	1.032 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information IL18

Function	Pro-inflammatory cytokine primarily involved in epithelial barrier repair, polarized T-helper 1 (Th1) cell and natural killer (NK) cell immune responses (PubMed:10653850). Upon binding to IL18R1 and IL18RAP, forms a signaling ternary complex which activates NF-kappa-B, triggering synthesis of inflammatory mediators (PubMed:14528293, PubMed:25500532, PubMed:37993714). Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells and natural killer (NK) cells (PubMed:10653850). Involved in transduction of inflammation downstream of pyroptosis: its mature form is specifically released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab222926 is the carrier-free version of ab207324.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

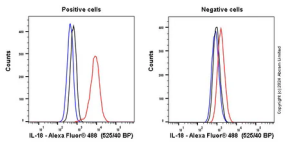
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



Flow Cytometry (Intracellular) - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

IL-18 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-18 antibody

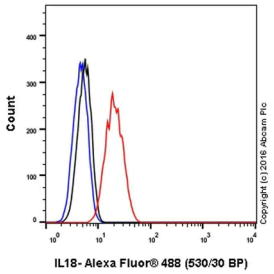
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207324).

Flow cytometry overlay histogram showing PC3 positive cells (left) and negative Jurkat cells (right) stained with ab207324 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab207324) (1x 10^6 in 100µl at 1µg/ml (1/2,500)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/2000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

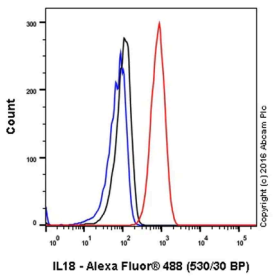
Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Flow Cytometry (Intracellular) - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

IL-18 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-18 antibody

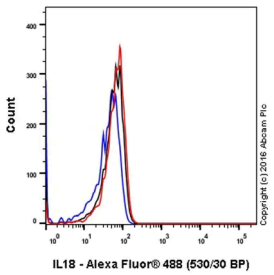
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed PC-3 (Human prostate adenocarcinoma cell line) cells labeling IL-18with ab207324 at 1/60 dilution (red) compared with Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207324).



Flow Cytometry (Intracellular) - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

IL-18 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-18 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HaCaT (Human keratinocyte cell line) cells labeling IL-18with ab207324 at 1/60 dilution (red) compared with 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 (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207324).



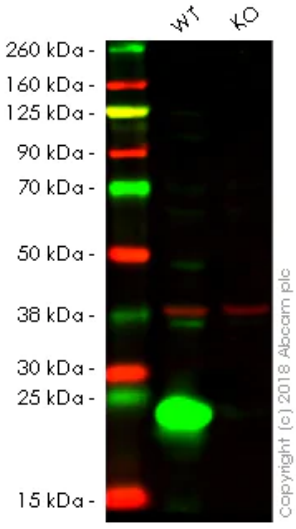
Flow Cytometry (Intracellular) - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

IL-18 Flow Cytometry (Intracellular) staining using rabbit Anti-IL-18 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed Jurkat (Human T cell leukemia cell line from peripheral blood) cells labeling IL-18with ab207324 at 1/60 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.
Negative control:

Jurkat cells serve as a negative cell line as described in PMID 15086390.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207324).



Western blot - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

IL-18 Western blot staining using rabbit Anti-IL-18 antibody

Lanes 1 - 2: Merged signal (red and green). Green - ab207324 observed at 22 kDa. Red - loading control, ab9484, observed at 37 kDa.
ab207324 was shown to recognize IL-18 in wild-type HEK293 cells as signal was lost at the expected MW in IL-18 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and IL-18 knockout samples were subjected to SDS-PAGE. ab207324 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/200 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

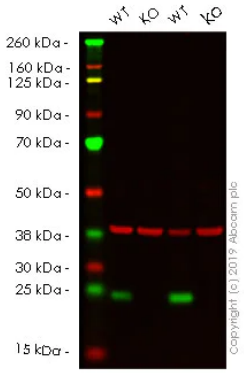
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab207324).

All lanes:
Western blot - Anti-IL-18 antibody [EPR19954] (ab207324) at 1/200 dilution

Lane 1:
Wild-type HEK-293 whole cell lysate at 20 µg

Lane 2:
IL-18 knockout HEK-293 whole cell lysate at 20 µg

Predicted band size: 22 kDa



Western blot - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926)

This data was developed using the same antibody clone in a different buffer formulation (ab207324).
Lanes 1-4: Merged signal (red and green). Green - ab207324 observed at 22 kDa. Red - loading control ab8245 observed at 37 kDa.

ab207324 Anti-IL-18 antibody [EPR19954] was shown to specifically react with IL-18 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265274 (knockout cell lysate ab256952) was used. Wild-type and IL-18 knockout samples were subjected to SDS-PAGE. ab207324 and Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker (ab52866) were incubated overnight at 4°C at 1 in 200 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-IL-18 antibody [EPR19954] - BSA and Azide free (ab222926) at 1/200 dilution

Lane 1:
Wild-type HeLa cell lysate at 20 µg

Lane 2:
IL18 knockout HeLa cell lysate at 20 µg

Lane 3:
A431 cell lysate at 20 µg

Lane 4:
Jurkat cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 22 kDa

Observed band size: 22 kDa

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