abcam

ab131039

Anti-IL-12A antibody [EP5737]

Anti-IL-12A antibody [EP5737] (ab131039) is a rabbit monoclonal antibody detecting IL-12A in **Western Blot, Flow Cytometry (Intra), IHC-P**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

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	EP5737
Purification technique	Affinity purification Protein A
Concentration	2.022 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human

Dilution info	1/800
Notes	**For unpurified use at 1/250 - 1/500.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/19000
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/200
Notes	-

Expected

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

Target data

See full target information IL12A

Function

Heterodimerizes with IL12B to form the IL-12 cytokine or with EBI3/IL27B to form the IL-35 cytokine (PubMed:8605935, PubMed:8943050). IL-12 is primarily produced by professional antigen-presenting cells (APCs) such as B-cells and dendritic cells (DCs) as well as macrophages and granulocytes and regulates T-cell and natural killer-cell responses, induces the production of interferon-gamma (IFN-gamma), favors the differentiation of T-helper 1 (Th1) cells and is an important link between innate resistance and adaptive immunity (PubMed:1673147, PubMed:1674604, PubMed:8605935). Mechanistically, exerts its biological effects through a receptor composed of IL12R1 and IL12R2 subunits (PubMed:8943050). Binding to the receptor results in the rapid tyrosine phosphorylation of a number of cellular substrates including the JAK family kinases TYK2 and JAK2 (PubMed:7528775). In turn, recruited STAT4 gets phosphorylated and translocates to the nucleus where it regulates cytokine/growth factor responsive genes (PubMed:7638186). As part of IL-35, plays essential roles in maintaining the immune homeostasis of the liver microenvironment and also functions as an immune-suppressive cytokine (By similarity). Mediates biological events through unconventional receptors composed of IL12RB2 and gp130/IL6ST heterodimers or homodimers (PubMed:22306691). Signaling requires the transcription factors STAT1 and STAT4, which form a unique heterodimer that binds to distinct DNA sites (PubMed:22306691).

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	Stable for 12 months at -20°C

Notes

What is this antibody validated in?
Anti-IL-12A antibody [EP5737] (ab131039) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P) in Human, Mouse samples.

What is the molecular weight of IL-12A?
Anti-IL-12A [EP5737] (ab131039) specifically detects a band for IL-12A (UniProt: P29459) at a molecular weight of 25kDa.

Trusted by the scientific community
Anti-IL-12A [EP5737] (ab131039) was first used in a scientific publication in 2012 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EP5737] also available for your convenience: ab131039, Carrier free - ab214433, Carrier free - ab302861

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.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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.

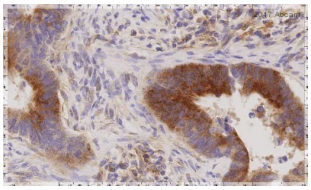
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

8 product images

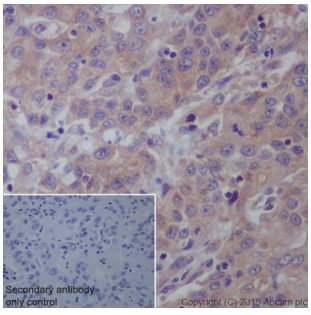


This image is courtesy of an anonymous customer review.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-12A antibody [EP5737] (ab131039)

IL-12A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL-12A antibody

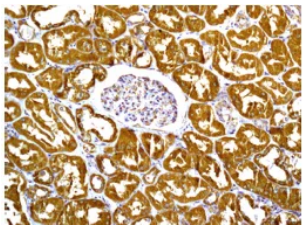
Formaldehyde-fixed, paraffin-embedded human colon tissue stained for IL-12A using ab131039 at 1/500 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-12A antibody [EP5737] (ab131039)

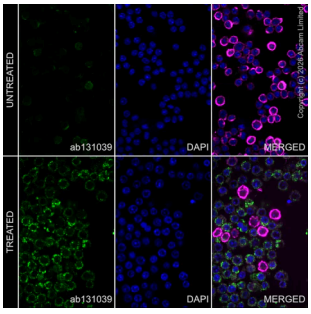
IL-12A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL-12A antibody

Immunohistochemical staining of paraffin embedded human gastric carcinoma tissue section labelling IL-12A with purified ab131039 at dilution of 1/800. The secondary antibody used was HRP conjugated Goat Anti-Rabbit IgG H&L (ab97051) at dilution of 1/500. The sample was counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL-12A antibody [EP5737] (ab131039)

Immunohistochemical analysis of paraffin-embedded human kidney tissue sections labelling IL-12A with unpurified ab131039 at dilution of 1:250.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

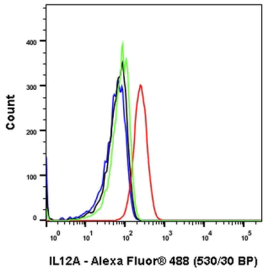


Immunocytochemistry/ Immunofluorescence - Anti-IL-12A antibody [EP5737] (ab131039)

IL-12A Immunocytochemistry/ Immunofluorescence staining of Raw 264.7 treated with 5ng/ml PMA for 48h and then 100mg/ml LPS and 3mM Monensin for 24h using rabbit Anti-IL-12A antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Raw 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling IL-12A with ab131039 at 1:200 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution.

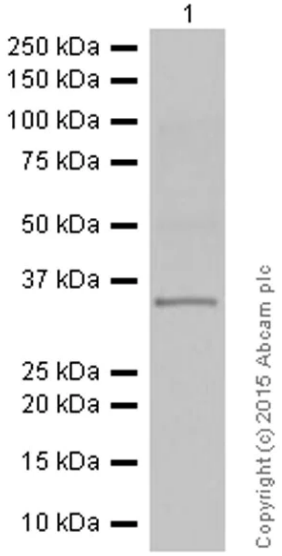
Confocal image showing increased cytoplasmic staining in Raw264.7 cells (shown in green) treated with 5ng/ml PMA for 48h and then 100mg/ml LPS and 3mM Monensin for 24h. The ab7291 Anti-alpha Tubulin mouse monoclonal antibody counterstain at 1:1000 dilution was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - Anti-IL-12A antibody [EP5737] (ab131039)

IL-12A Flow Cytometry (Intracellular) staining using rabbit Anti-IL-12A antibody

Flow cytometry analysis of Raw264.7 cells treated with 100ng/ml for LPS 24hour cells labelling IL-12A with ab131039 at 1/19000 dilution (1.02 ©:g/ml) (Red). Cells were fixed with 4% paraformaldehyde . Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlabeled control - Unlabelled cells (Blue).



Western blot - Anti-IL-12A antibody [EP5737] (ab131039)

IL-12A Western blot staining of HuT-78 (human Sezary syndrome) whole cell lysate using rabbit Anti-IL-12A antibody

Blocking and diluting buffer 5% NFDM/TBST
All lanes:
Western blot - Anti-IL-12A antibody [EP5737] (ab131039) at 1/1000 dilution

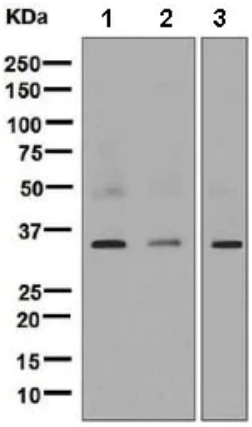
All lanes:
HuT-78 (human Sezary syndrome) whole cell lysate at 20 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 12 kDa, 25 kDa

Observed band size: 35 kDa



Western blot - Anti-IL-12A antibody [EP5737] (ab131039)

All lanes:
Western blot - Anti-IL-12A antibody [EP5737] (ab131039) at 1/1000 dilution

Lane 1:
NIH3T3 cell lysate at 10 µg

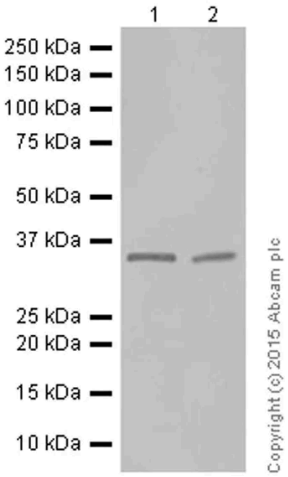
Lane 2:
HuT-78 cell lysate at 10 µg

Lane 3:
Raw 264.7 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 25 kDa



Western blot - Anti-IL-12A antibody [EP5737] (ab131039)

Blocking and diluting buffer 5% NFDM/TBST
All lanes:
Western blot - Anti-IL-12A antibody [EP5737] (ab131039) at 1/5000 dilution

Lane 1:
NIH/3T3 (mouse embryo) whole cell lysate at 20 µg

Lane 2:
Raw264.7 (mouse abelson murine leukemia virus-induced tumor) whole cell lysate at 20 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 25 kDa

Observed band size: 35 kDa

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